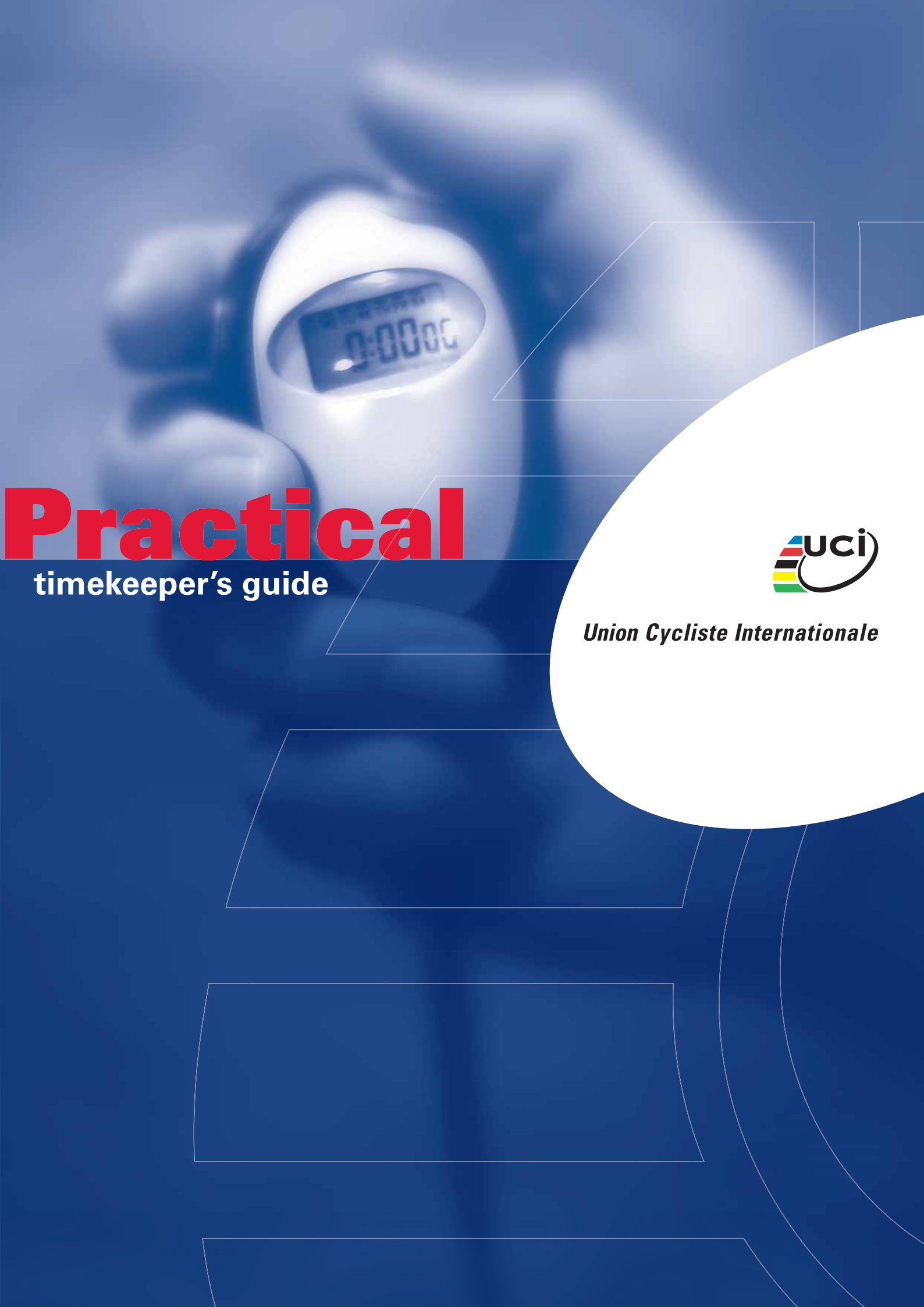

Practical

timekeeper's guide

Union Cycliste Internationale

This guide is a continuation to the UCI road and track practical guide. It is dedicated to national federations' instructors or to any commissaires who wish to improve their skills as timekeeper.

This guide puts into practice the regulation, it does not replace it! Because the regulation will certainly evolve it may become necessary to adapt this guide accordingly.

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International commissaire, Jacques SABATHIER has assured the role of coordinator of this document.

Jacques SABATHIER
Head of training

1. General part

1.1 The timekeeper

Classes of timekeeper

There are two classes of timekeeper:
- regional timekeepers: these officiate in events forming part of the regional calendar,
- federal timekeepers: these officiate in accordance with federal designations in national and UCI calendars.

Regional timekeeper

Any regional timekeeper candidate must, as a minimum:
- be a regional commissaire,
- be the holder of an official's licence issued in the current year,
- be in possession of a reliable quartz stopwatch with display in 100ths of a second, allowing the display of intermediate times and capable of storing at least thirty times, if possible with a printer,
- take a standard written examination organized by the regional committee, which is to include theory and practical tests, after having previously completed a training course at different events alongside a qualified timekeeper,
- undergo a medical, regardless of age.

1 4

Federal timekeeper

Any federal timekeeper candidate must, as a minimum:
- be a national commissaire,
- be under 50 years of age in the current year[1],
- be the holder of an official's licence issued in the current year,
- have been a regional timekeeper for at least 3 years[1],
- have participated in a test of knowledge for evaluating the most competent candidates[1], with a view to a federal training course followed by a theory and practical examination to obtain the qualification of federal timekeeper. The examination is supervised by the national committee of the Corps of Referees,
- in order to be designated for events forming part of the federal and UCI calendar, federal timekeepers must be in possession of at least one electronic stopwatch with printer, of an approved type (TAG-HEUER, TISSOT or OMEGA type, or similar),
- provide proof of ownership of this stopwatch.

An unsuccessful candidate may retake the examination after a minimum period of 2 years.[1]

[1] as decided by the national federation
NB: The above stipulations for the qualification of timekeepers are given only by way of example and may be modified by the national federation.

1.2 Timekeeping techniques and special features concerning the measurement of time

Time calculation uses complex numbers.
"Complex numbers" are numbers in which the units of different orders do not follow decimal numbering with a change of unit to 10, 100, 1000, etc.
Time units are hours, minutes, seconds, tenths/one hundredths/one thousandths of a second.

These time units are represented as follows:
- Hour : h
- Minute : ‘
- Second : ’’
- Tenth : 1/10
- One hundredth : 1/100
- One thousandth : 1/1000
- 1 hour = 60 minutes (60‘) ou 3600 seconds (3600’’)
- 1 minute = 60 seconds (60’’)
- 1 second = $10/10^{ths}$ ou $100/100^{ths}$ or $1000/1000^{ths}$

When qualified, timekeepers will be provided with calculators allowing them to convert, add, subtract, divide or multiply and also to carry out all operations with complex numbers. Barely twenty years ago, such calculations were made manually or using mental arithmetic, with all these figures being rounded to the nearest second, in accordance with scales and conversion tables, which all took a great deal of time but meant that our predecessors were veritable mental-arithmetic champions!
Nowadays, we are able to use calculators, and timekeepers have most certainly lost some of their predecessors' performance edge.
However, in simple addition or subtraction calculations, it is much faster for a timekeeper to use mental arithmetic rather than a calculator.

1.3 Timekeeping supporting documents

In order to standardize working documents and methods for all timekeepers, it is desirable for each time-keeper to be in possession of standard forms (attached hereto).

In the case of one-day and stage road events:

- sheet for recording times numbered 1 to 30, allowing the recording of the time of each group, its composition, differences as compared with the winner's time, the average, deadlines and elimination times, the list of non-starters and retirements
- sheet for recording times numbered from 31 to 60 (as above)
- road finish sheet
- sheet for recording daily team classification
- forms for recording overall team classification
- individual form for the overall classification (5 stages)
- individual form for the overall classification (12 stages)
- individual form for the time trial
- individual form for the time trial and prologue
- time trial starting order
- team time trial finish form
- sheet for recording time trial finish times
- record of distances and averages
- race follow-up

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In the case of cyclo-cross:

- "lap-by-lap" scoring sheet, with the distances between the first ten (in major national events)
- table specifying the number of laps to be raced as a function of the category of competitor and maximum race time

In the case of track events:

- sheet recording times (200 m, 500 m, km)
- sheet recording pursuit times (recording at each half-lap)

1.4 Functions and recording time

A federal timekeeper must record the time in the following cases:

- national track record attempts (two timekeepers)
- official road and time trial events (two timekeepers)
- major road classics (one timekeeper)
- stage events (one or two timekeepers if there is a time trial in the event).

In the case of track events, times are recorded to 1000th of a second whenever time determines the result.
In the case of a road event, times are recorded to 1/10th or even 1/100th of a second (for monitoring break-aways), and are then rounded to the nearest second for road races and to 100th of a second in the case of time trial races.

The recording of times using automatic time sensors and recording apparatus is not permitted unless an official timekeeper has operated the device.
In all circumstances, he must make a manual check of electronic timing.
In all other cases, the recording of time by an official timekeeper is recommended.
If the organizer of an event is bound by an advertising contract to a specific brand of stopwatch, he cannot require the official timekeeper to use stopwatches of that brand unless these devices offer the same guarantees and meet the requirements for federal timekeepers.

In a stage event, the presence of a federal timekeeper is mandatory, and it is desirable for him to be assisted by a federal or regional timekeeper.
Two federal timekeepers must officiate at stage events that include a time trial.
An official timekeeper may never simultaneously perform his own tasks and those of a race official.

Official times:

If several stopwatches have been used by the one or more timekeepers, as appropriate, the following rules should be complied with:

- if two stopwatches have recorded the time and concur, said time is the official time. If they do not concur, only the worst time recorded is the official time;
- if three stopwatches record one or more different times, only the intermediate time, not the average time, is regarded as the official time.

1.5 Official time

Prior to the start of any event, timekeepers must synchronize the various stopwatches with the speaking clock (telephone call to the number for each country) and advise the various officials and the announcer of the official time.

The timekeeper and the finish judge alone are responsible for the various time classifications. They must check the latter before publication.

1.6 The timekeeper's equipment

There are various forms of stopwatch and associated peripherals:

Stopwatches

- The "lanyard" stopwatch: manual stopwatch with digital display allowing viewing of the time of day (time trial start), the race time and the intermediate times with minimum memory capacity of 30 times.
- Electronic stopwatch with integral printer of TAG-HEUER 501, 505, 520, POWERTIME OMEGA or similar type: these stopwatches allow the use of suitable peripherals, such as squeeze-horn, contact strips, photoelectric cells, starting gate or starting pistol. Such stopwatches can incorporate competitors' start times and allow instantaneous calculation of the race time and also the classification. They may also be directly connected to computers.
- Electronic desk-top stopwatch that can be linked up to a video-finish system, starting blocks, display panel and TV overlay (equipment used principally in velodromes or made available by service providers at major road events).

Calculator

Of a type suitable for calculating complex numbers (averages, deadlines, addition, subtraction, multiplication).
Several brands offer calculators suitable for calculating time.
For the following examples, we have used the CASIO FX 92 COLLEGE II (the most commonly used).

Calculating an average
Example: 154,00 km over 4 h 1' 25''
Programme in 154 then [÷] enter 4 [° ' "] 1 [° ' "] 25 [° ' "] [=] 38.274077, rounded to **38.274 km/h**.

Time addition

Example: 3 h 17' 15'' + 2 h 59' 54''
Proceed as follows:
3 [° ' "] 17 [° ' "] 15 [° ' "] [+] 2 [° ' "] 59 [° ' "] 54 [° ' "] [=] [SHIFT] [° ' "], the result appears: 6°17°9., **i.e. 6 h 17' 9"**

Time subtraction

Example: 7 h 18' 42'' - 7 h 15' 36''
Proceed as follows:
7 [° ' "] 18 [° ' "] 42 [° ' "] [-] 7 [° ' "] 15 [° ' "] 36 [° ' "] [=] [SHIFT] [° ' "], the result appears: 0°3°6., **i.e. 3' 6"**

Calculating an average using 100^{ths} of a second

The operation is identical to Example 1, but with the introduction of the [·] of the decimal for figures after the whole seconds before the one hundredths:
154 [÷] 4 [° ' "] 1 [° ' "] 25 [-] 97 [° ' "] [=] 38.271514 rounded to **38.271 km/h**.

Calculation using the memory (time or distance)

After checking that the memory is empty, enter the fixed element (distance or time) using thee [M+] key, make the 1st calculation and then engage the memory by using thee [MR] key.

Example: Calculation of various averages in a time trial event:
Distance: 32 km, 1st rider's time: 38' 3" 8/10
On the calculator, display 32 then press thee [M+] [÷] key, display the rider's race time, i.e. 0 [° ' "] 38 [° ' "] 3 [·] 8 [° ' "] [=], the average is displayed, i.e. 50.442245, rounded to **50.442 km/h**.
In order to calculate another average, press the [MR] key, the distance of 32 appears again and proceed as above.
[MR] [÷] 0 [° ' "] 38 [° ' "] 6 [·] 6 [° ' "] [=] 50.380478, rounded to **50.380 km/h**.

Multiplication

Example of the calculation of an elimination deadline: 1st rider's time: 4 h 29' 37'', elimination deadline: 18 %
Proceed as follows:
After having displayed the race time, multiply that by 0.18, i.e:
4 [° ' "] 29 [° ' "] 37 [° ' "] [x] 0.18 [=] [SHIFT] et [° ' "], the result appears: 0°48°31.8 this time always being rounded up to the next second, the time to be taken is **48' 32"**, the maximum race time before elimination will thus be 4 h 29' 37" + 48' 32", i.e: **5 h 18' 9"**
Another calculation method (maximum race time): 4 [° ' "] 29 [° ' "] 37 [° ' "] [x] 1.18 [=] [SHIFT] and [° ' "]
the result appears: 5°18°8.86. This will be rounded up to the next second, i.e. **5 h 18' 9"**.

Division

Proceed as above:
Example: 6 h 12' 36'' divide by 6
6 [° ' "] 12 [° ' "] 36 [° ' "] [÷] 6 [=] [SHIFT] [° ' "] , the result appears: 1°2°6., i.e: **1 h 2' 6"**.

Presentation of operations

Time addition

	3 h	49′	23″	5/10
+	2 h	53′	59″	8/10
	5 h	102′	82″	13/10
			+ 1″	- 10/10
	5 h	102′	83″	**3/10**
		+ 1′	- 60″	
	5 h	103′	**23″**	**3/10**
+	1 h	- 60′		
	6 h	**43′**	**23″**	**3/10**

Carry operations:

		1	1 1	1 1	
	3 h	49′	23″	5/10	
+	2 h	53′	59″	8/10	
	6 h	**43′**	**23″**	**3/10**	

NB: The presentation of the left-hand operation (calculation and comments) must enable an uninitiated person to carry over supplementary units with the following explanations:
Line 3 records the time addition unit by unit.
13/10 of a second equivalent to 1″ and **3/10**.
To the 82 seconds, the extra second from the 10ths is thus added, i.e. 83 seconds or 1′ and **23″**.
To the 102 minutes, the extra minute from the seconds is thus added, i.e. 103′ or 1 h and **43′**.
To the 5 hours, the extra hour from the minutes is thus added, i.e. **6 h**.
The definitive result is therefore **6 h 43′ 23″ 3/10.**
In practice, the timekeeper will perform these carry operations during a calculation, presented on the right-hand side.

Operation using the calculator

3 [° ′ ″] 49 [° ′ ″] 23 [·] 5 [° ′ ″] [+] 2 [° ′ ″] 53 [° ′ ″] 59 [·] 8 [° ′ ″] [=] [SHIFT] [° ′ ″],

the following result appears: 6° 43° 23.3, i.e. 6 h 43′ 23″ 3/10.

Time subtraction

A	**6 h**	**47′**	**31″**	**7/10**
	- 3 h	58′	45″	9/10
			- 1″	+ 10/10
			30″	17/10
		- 1′	+ 60″	
		46′	90″	17/10
	- 1 h	+ 60′		
a	**5 h**	**106′**	**90″**	**17/10**
	- 3 h	58′	45″	9/10
	2 h	**48′**	**45″**	**8/10**

Converted during an operation:

5 h	106′	90″	17/10	
6 h	**47′**	**31″**	**7/10**	
- 3 h	58′	45″	9/10	
2 h	**48′**	**45″**	**8/10**	

NB: The presentation of the left-hand operation enables an uninitiated person to understand how the conversion has been made from **A (6 h 47′ 31″ 7/10)** to **a (5 h 106′ 90″ 17/10)**.

In practice, a timekeeper will make these calculations during a direct operation by incorporating these mental conversions, when calculating tenths, seconds, minutes and hours.

Operation using the calculator

6 [° ′ ″] 47 [° ′ ″] 31 [·] 7 [° ′ ″] [-] 3 [° ′ ″] 58 [° ′ ″] 45 [·] 9 [° ′ ″] [=] [SHIFT] [° ′ ″],

the following result appears: 2° 48° 45.8, i.e. 2 h 48′ 45″ 8/10.

Time multiplication

Example:	3 h	28′	35″	42/100
x				3
	9 h	84′	105″	126/100
i.e.:	**10 h**	**25′**	**46″**	**26/100**

Operation using the calculator

3 [° ′ ″] 28 [° ′ ″] 35.42 [° ′ ″] [X] 3 the machine displays: 10°25°46 instead of 10°25°46.[26]

ATTENTION: The digital display window has only 8 spaces, so the one hundredths 26 do not appear on the screen, but the machine makes the correct calculation in terms of seconds. In this case, the solution consists in not entering the one hundredths, in multiplying them by three and in adding them to the result obtained previously.

Time division

6 h	37′	45″		4
2 x 60′	= 120			**1 h**
	157			**39′**
	1 =	60″		
		105″		**26″**
		1″ =	100/100	**25/100**

The emboldened result appears vertically, i.e.: **1 h 39′ 26″ 25/100**[es].

Operation using the calculator

6 [° ′ ″] 37 [° ′ ″] 45 [° ′ ″] [÷] 4 [=] the machine displays 1°39°26.2 instead of 1°39°26°25.

As in the case of multiplication, the screen is limited to 8 characters, so the last figure does not appear.

1.7 Timekeeper's activity in the various events

You have been designated for a regional, federal or international event as timekeeper for a one-day or stage race:

Before the event

Please contact the organizer regarding your arrival (date, time and take-over place), asking him to send you the specific regulations for the event and also the number of teams and riders participating.
Study all the special points of the event regulations and, in particular, everything concerning timekeeping.
Check whether there are any bonuses envisaged and whether these are in accordance with federal or UCI regulations.
Check the elimination deadlines. Check for any level crossings.
In the case of a team time trial, check that the time-recording definition is provided (on which rider?) and whether there is any time ceiling.
This information will enable you to prepare your timekeeping documents: finish sheets, any time trial forms, individual time classification forms, team day and overall classification forms. You will also be able to make comments and provide the chief commissaire with any further information prior to the time manager's meeting.

1.8 Position of the timekeeper in road events

In all circumstances, the timekeeper travels at the front, ahead of the front of the race:

- in order to trigger the time at km 0,
- in order to calculate various time averages for the race and to pass these on,
- to cover any blocked path scenarios,
- in order to be able easily to reach the finish by leaving the race within the last thirty kilometres, without having to overtake the riders.

2. Road

2.1 One-day events (one timekeeper)

- **Synchronization of the stopwatch(es)** with official time (speaking clock, phone number according to the country).
- **Triggering the stopwatch** (race time) at the actual start of the event – for both standing and flying start (km 0, set the car's daily trip meter to 0).
- Calculate the various kilometre averages every hour during the race and pass this information on.
- **Possible blocked path scenarios** in the event of a race incident (level crossing or other event).
- **Recording of the time of each group** at the finish (carefully note at least the first and last in each group). At the finish, all riders in a peloton are awarded the same time unless this peloton has gaps equal to or greater than one second; if this is the case, the timekeeper records a new time. He officiates until the sweep vehicle has arrived and reports the times of any riders exceeding the deadline to the principal commissaires.
- All finish times are rounded down to the next second except in the case of elimination times, which are always rounded up to the next second.
- Elimination deadlines are set by the organizer in the special regulations for the event or, failing that, in the federal or UCI regulations.
- **Calculating the hour average**, rounded down to the last metre, over real time without bonuses or penalties.
- **Calculation of elimination deadlines** and of the maximum race time to be established in accordance with the UCI regulations. A rider arriving within a deadline exceeding the time percentage (referred to in the regulations) of the winner is not retained in the classification. The elimination deadline may be increased in the event of exceptional circumstances by the college of commissaires, in consultation with the organizer.
- UCI regulations specify that all riders in the same peloton are awarded the same time. Time-keepers officiate until the sweep vehicle has arrived. They also record the times of riders arriving after the deadlines granted and they and the list, together with the times, to the president of the commissaires' panel.
- **Checking** classifications and times with the finish judge prior to publication.
- **Team classification** is optional. It may be established in two ways:
  - ► by adding together the 3 best individual times of each team. In the event of a dead heat, teams are distinguished by adding places obtained by their first three riders. In the event of a dead heat occurring again, teams are distinguished in terms of the position of their highest placed rider;
  - ► by the addition of places (in the form of points) obtained by the first three riders classified in each team, the first team being that acquiring the smallest number of points, the second the number of points immediately above that, etc. In the event of a dead heat, it is the team whose first rider is most highly placed that will take precedence.

2 10

2.2 Stage events (two timekeepers)

Points 1 to 4: as above.

- Timekeeper A records the time of each of the groups at the finish in accordance with the compositions forwarded to him by the finish judge or timekeeper B. All the riders in a peloton or group are awarded the same time unless this peloton or group has gaps equal to or greater than one second. Timekeeper A will record all times until the sweep vehicle arrives. Timekeeper B is responsible for monitoring the presence of the various time leaders and, in the event of a change, for making the calculations for the award of the team overall classification and time classification jerseys in order to pass these on immediately to the organization for the purposes of the awards ceremony.
- Timekeeper B then calculates the stage average, the times and elimination deadlines for forwarding to the president of the jury.
- In the event of doubt, he checks, with the photo-finish operator, the distances involved in the breaks noted (distance between rear-wheel tangent of the last rider crossing the line and the front-wheel tangent of the rider then arriving at the line).
- The individual overall time classification and the team overall time classification are mandatory in the case of certain events forming part of the UCI calendar (cf. UCI road regulations).
- The times recorded by the timekeepers are transferred to the time overall classification. Bonuses are taken into account for the purposes of the individual overall classification only.
- In the event of a time dead heat in the individual overall classification, the one hundredths of a second recorded during individual time trial stages (including the prologue) are reincorporated into the total time in order to distinguish between dead-heat riders.
- In the event of there still being a dead heat or in the absence of individual time trial stages, the places obtained in each stage are added, and, in the last resort, the place obtained in the last stage contested is added.

- The team classification for the day is established by adding the three best individual times for each team. In the event of a dead heat, the teams are distinguished by means of the addition of the places obtained by their first three riders in the stage. In the event of there still being a dead heat, the teams are distinguished by means of the place of their best rider in the stage classification.
- The team overall classification is established by means of the addition of the three best individual times for each team in all stages contested. In the event of a dead heat, the following criteria apply until the dead heat can be resolved:
  - ► Number of first places in the team classification for the day.
  - ► Number of second places in the team classification for the day, etc.;
  - ► If there is still a dead heat, the teams are distinguished by means of the place of their best rider in the individual overall classification.
- Any team reduced to less than three riders is eliminated from the team overall classification.
- 6 – checking of the various time classifications before publication.

Finish deadline

UCI regulations

Finish deadlines are set by the special regulations for each event as a function of the stage characteristics.
The college of commissaires may, in agreement with the organizer, extend the deadlines in accordance with particular circumstances.

Bonuses

As a function of UCI regulations, time bonuses may be awarded under the following conditions:
Bonuses may be awarded under the following conditions:

1. Major tours (Tour de France, Giro, Vuelta):

   Intermediate sprints:
   - half-stages: maximum 2 sprints
   - stages: maximum 3 sprints

   Bonuses:
   - intermediate sprints: 6'' 4'' 2''
   - half-stage finish: 12'' 8'' 4''
   - stage finish: 20'' 12'' 8''

2. Other events:

   Intermediate sprints:
   - half-stages: maximum 1 sprint
   - stages: maximum 3 sprints

   Bonuses:
   - intermediate sprints: 3'' 2'' 1''
   - half-stage finish: 6'' 4'' 2''
   - stage finish: 10'' 6'' 4''

Bonuses may not be awarded during stages or half-stages without provision thereof at the finish. Bonuses awarded in the course of stages may not be greater than those awarded at the finish.
Bonuses will only be transferred to the individual time overall classification.
No bonus will be awarded for time trial stages or for the prologue.

Calculating the various averages

In stage events, timekeepers are required to calculate:

- THE OVERALL AVERAGE FOR THE EVENT (rounded down to the nearest metre): addition of the distances of each stage, divided by the addition of the times for the first rider in each stage, **without bonuses**.
- THE AVERAGE OF THE FIRST RIDER IN THE GENERAL CLASSIFICATION (rounded down to the nearest metre): addition of the distances of each stage, divided by the time of the first rider in the overall classification, **without bonuses.**
- **For the purposes of calculating the various averages, account is never taken of bonuses or penalties.**

2.3 Individual time trial events

- Synchronization of all stopwatches, starting clocks with the speaking clock (telephone number for each country).
- **Timekeeper A (start)**: he will advise the announcer of the official time 15 minutes prior to the first start in order to advise the first starters and the public, with reminders at 5, 4, 3, 2 and 1 minute/s preceding the first start.
- He checks that the rider presenting himself at the start is indeed the rider mentioned on the starting-order sheet.
- The timekeeper counts down the minute or minutes prior to each start (in accordance with the distances between each starter) counting down the 30, 20, 10, 5, 4, 3, 2, 1 seconds and giving the starting "beep".
- The start must be from standing. The rider is held and released, without being pushed, by a "holder". This "holder" must be the same for all riders.
- If a rider presents himself late, he must cross the start line and record a stop time. His race time will be calculated as a function of the start time set for him. He will never take priority over a rider starting on time.
- He records any early starts.
- If the start time is recorded using an electronic strip, the distance between the contact point of the front tyre with the ground and the electronic strip must be 10 cm.
- The rider starts under the orders of the timekeeper, who performs a countdown. From the end of this countdown, the rider's time begins to be counted. The time of any rider presenting himself late at the start will be counted from the time normally set for his start.
- The start may be determined by the contact of the front tyre with an electronic timekeeping strip on the start line. If the rider starts slightly ahead of the 0 signal or within the 5 seconds before the end of the countdown, it is the trigger time that is taken into account. If the rider starts after this 5-second period, or in the event of problems with electronic time recording, the rider's time is counted normally on the basis of the time set for his start.

- **Timekeeper B (finish):** at the finish, time recordings are made to 100th of a second in order to distinguish between any dead heats. However, times are published to the second in official communiqués on display boards and monitoring screens.
- In the World Championship and the Olympic Games, times are recorded and published to 100th of a second, using electronic timekeeping.
- In all cases, the timekeeper will, at the finish, make a dual recording of the times based on electronic timekeeping.
- When each rider finishes, the timekeeper will note down the body number and finish time on a finish-order sheet. He will transfer each rider's finish time to the individual form, to which the start time will already have been transferred, will calculate the race time and check it using any electronic time-keeping available to validate that time. He will then classify his forms, from best to worst time, calculate the average when each new best time is received and, as far as possible, with the assistance of the finish judge, re-establish the overall classification after the time trial in order to be able to provide the names of the new leaders as soon as the last rider finishes.
- The timekeeper will advise the names of riders arriving after the deadline to the panel of commissaires.
- The timekeeper at the finish is alone responsible for this classification.

2.4 Start order in a time trial in stage races

The start order of individual time trial stages is the reverse of the overall time classification for the previous day. However, the college of commissaires may modify this order in order to prevent two riders in the same team following one another.
During the prologue, or if the first stage is an individual time trial event, the teams' start order is set by the organizer in agreement with the college of commissaires, and each team will decide the start order of its riders.
The special regulations applying to each event in principle define the time gap separating each competitor, i.e. 1', 2' or 3', depending on the distance and the number of starters. This time difference may be increased for the first 10, 15 or 20 in the overall classification.
When establishing the individual time trial start order, the timekeeper will check with the organizer regarding the desired finish time for the last competitor, taking into account award-ceremony problems or TV scheduling.
The timekeeper will then base his start order on the desired finish time for the last competitor.

Example: Event distance: 37.500 km, 78 riders at the start leaving every 2', except for the first 15 in the overall classification, who will leave every 3'.
Desired finished time for the last participant: 16 h 40.
Provisional race time of the last starter calculated as a function of the course profile, with an average envisaged at 50 km/h.
37.500 km ÷ 50 km/h = 45' of the race.
Start time of the last competitor: 16 h 40 – 45' = **15 h 55**.

Calculation details:

15 riders with a separation of 3', i.e.	45'
62 riders with a separation of 2', i.e.	124'
i.e.	169' or 2 h 49'.

The first competitor will thus start at 15 h 55 – 2 h 49 = **13 h 06**.

In the above calculation, there are 15 competitors starting with a separation of 3' from the rider preceding them. In fact, when it is stated that the last 15 leave every 3', it should be understood that these 15 riders leave a good 3' after the riders preceding them. Federal and UCI regulations are insufficiently precise, so some timekeepers tend to allow only 14 3' separations, which means that the 15th in the overall classification leaves 2' after the 16th in the overall classification.

EVENT: **TOUR DE LORRAINE** **DATE:** **30 May 2003**

TIME TRIAL START ORDER
Riders start every **2** minutes
except for the last **15** starters, when the separation will be **3** minutes
First start at **13** h **06** min Last start at **15** h **55** min

Order N°	Body N°	Start time		
		H	M	S
1	47	13	06	00
2	63	13	08	00
3	22	13	10	00
4	25	13	12	00
5	14	13	14	00
6	74	13	16	00
7	67	13	18	00
8	85	13	20	00
9	5	13	22	00
10	124	13	24	00
11	98	13	26	00
12	35	13	28	00
13	44	13	30	00
14	16	13	32	00
15	56	13	34	00
16	8	13	36	00
17	65	13	38	00
18	52	13	40	00
19	95	13	42	00
20	114	13	44	00
21	112	13	46	00
22	76	13	48	00
23	23	13	50	00
24	3	13	52	00
25	45	13	54	00
26	77	13	56	00
27	92	13	58	00
28	105	14	00	00
29	103	14	02	00
30	12	14	04	00
31	83	14	06	00
32	42	14	08	00
33	26	14	10	00
34	81	14	12	00
35	97	14	14	00
36	116	14	16	00
37	61	14	18	00
38	54	14	20	00
39	48	14	22	00
40	33	14	24	00

Order N°	Body N°	Start time		
		H	M	S
41	47	14	26	00
42	63	14	28	00
43	22	14	30	00
44	25	14	32	00
45	14	14	34	00
46	74	14	36	00
47	67	14	38	00
48	85	14	40	00
49	5	14	42	00
50	124	14	44	00
51	98	14	46	00
52	35	14	48	00
53	44	14	50	00
54	16	14	52	00
55	56	14	54	00
56	8	14	56	00
57	65	14	58	00
58	52	15	00	00
59	95	15	02	00
60	114	15	04	00
61	112	15	06	00
62	76	15	08	00
63	23	15	10	00
64	3	15	13	00
65	45	15	16	00
66	77	15	19	00
67	92	15	22	00
68	105	15	25	00
69	103	15	28	00
70	12	15	31	00
71	83	15	34	00
72	42	15	37	00
73	26	15	40	00
74	81	15	43	00
75	97	15	46	00
76	116	15	49	00
77	61	15	52	00
78	54	15	55	00
79				
80				

Order N°	Body N°	Start time		
		H	M	S
81				
82				
83				
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119				
120				

Distance: **45.000 km** Last competitor's finish envisaged: **16** h **40** min

2.5 Team time trial events

The start order in team time trials is the reverse of the team overall classification. If there is no special, UCI-authorized regulation, the start order is set by a drawing of lots.

The classification of team time trial stages must count for the purposes of the individual time overall classification and team overall classification. The rules of the event will establish the time transfer method, including times for riders who are dropped.

Time recordings will take place on the 3rd, 4th or 5th rider, depending on the special regulations for the event. All riders finishing as a group will be awarded the same time, even if they finish ahead of the reference rider.
Riders dropped by the reference rider (gap of more than one second) will be awarded their actual time.
Each rider, if he finishes with the team, will have the time taken by the team entered in his individual overall classification. Certain special regulations covering events make provision for a maximum time ceiling for teams or riders arriving late relative to the best team's scratch time.
In terms of the team overall classification, the actual time of the reference rider (3rd, 4th or 5th) is taken into account.
The timekeeper will advise the names of the riders or teams arriving beyond the deadline to the panel of commissaires.

Time penalties in an individual time trial

Time penalties are established in accordance with a UCI and federal scale, as a function of infringements committed: either a rider slipstreaming another rider or infringements on the part of a team manager drawing level with his rider, or other incidents.

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NB: Time penalties are calculated in accordance with the scale as a function of the distance over which the infringement is committed and in accordance with the speed of the rider committing the infringement.
Example: a rider slipstreams a rider who has overtaken him over 800 m; the speed of the overtaken rider is 41 km/h and he will therefore be penalized by 16", in accordance with the following table.

Time penalties for incidents occurring during the race

Time penalties imposed by the college of commissaires for incidents occurring in the course of the race are shown in the UCI penalty scale. These penalties are transferred to the individual overall classification or even to the team overall classification, at the discretion of the panel of commissaires.

2.6 Time-penalty table

Table of penalties, in seconds, applicable to time trial events:

Dist. in	Speed in km/h																														
metres	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
50	1	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2	2	2	3	3	3	3	3	3	3	3	3	3
100	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2	2	3	3	3	3	3	3	4	4	4	4	5	5
150	1	1	1	1	1	2	2	2	2	2	3	3	3	3	3	3	4	4	4	4	4	4	5	5	5	5	5	5	5	6	6
200	2	2	2	2	2	2	3	3	3	3	3	4	4	4	4	4	5	5	5	5	5	5	6	6	6	6	6	6	7	7	7
250	2	2	2	2	3	3	3	3	4	4	4	4	4	4	5	5	5	5	5	6	6	6	6	7	7	7	7	8	8	8	9
300	2	2	3	3	3	3	4	4	4	4	4	5	5	5	6	6	6	7	7	7	7	8	8	8	9	9	9	10	10	11	12
350	3	3	3	3	3	4	4	4	5	5	5	5	6	6	6	7	7	7	7	8	8	8	9	9	10	11	11	12	13	14	15
400	3	3	3	3	4	4	4	5	5	5	5	6	6	7	7	8	8	9	9	9	10	10	11	12	13	14	15	16	17	18	19
450	4	4	4	4	5	5	5	6	6	6	6	7	7	8	8	9	10	11	11	12	12	13	14	15	16	17	18	19	20	22	23
500	4	4	4	5	5	5	6	6	7	7	7	8	8	9	9	10	11	12	12	13	14	15	16	17	18	20	21	22	24	26	28
550	5	5	5	6	6	6	7	7	8	8	8	9	10	10	11	12	13	14	15	16	16	17	18	20	22	24	26	27	29	31	33
600	5	5	6	6	7	7	8	8	9	9	10	11	11	12	12	13	14	15	16	17	19	20	21	23	25	27	29	31	33	35	38
650	6	6	6	7	7	7	8	8	9	10	11	12	12	13	14	15	16	17	18	20	22	23	25	27	29	31	33	35	37	40	43
700	6	6	7	7	8	8	9	9	10	12	13	14	15	16	17	18	19	20	21	23	25	27	29	31	33	36	38	40	42	46	49
750	6	7	7	8	8	8	9	10	11	13	14	15	16	17	18	20	21	22	24	26	28	30	32	35	37	40	42	44	47	50	55
800	7	7	7	8	9	9	10	11	12	14	15	16	17	19	21	23	24	25	27	29	31	33	36	39	42	45	47	49	52	56	61
850	7	7	8	9	9	10	11	13	14	15	17	18	19	21	23	25	27	29	31	33	35	37	40	43	47	50	53	56	59	62	68
900	7	8	9	10	11	12	13	14	15	17	19	20	22	24	26	28	30	32	34	36	39	42	45	48	51	55	58	61	65	69	75
950	8	9	10	11	12	13	14	15	17	19	21	23	25	27	29	31	33	35	37	39	42	45	48	51	55	60	64	67	71	75	82
1000	8	9	11	12	13	14	15	17	19	21	23	25	27	29	31	34	36	38	40	43	46	49	52	56	60	64	68	72	77	82	90

2.7 Level crossings

It is strictly prohibited to cross closed level crossings. A level crossing is regarded as closed as soon as the red light begins to flash.
UCI regulations contain provisions to be implemented in accordance with race situations in the case of the way ahead being blocked and regarding re-starting.
This article also applies to similar situations: movable bridges, obstacles on the roadway.

2.8 Prologue

Stage events may include a prologue, under the following conditions:
- The prologue must be less than 8 km long.
- The prologue must be contested as an individual time trial. In the event of more than 60 riders taking part, the gap between the riders at the start may not exceed 1 minute.
- The prologue must count towards the individual overall classification. It may, as appropriate, count towards the team overall classification (cf. the special regulations for the event).
- A rider who has an accident during the prologue and who is unable to finish the race may start the following day. He will be awarded the last time.
- It is forbidden to run or to arrange for the running of a second event on the same day as the prologue.
- The prologue counts as a race day.

2.9 Finishes

In the event of a fall, puncture or mechanical incident, duly recorded, after a rider has passed under the banner marking the start of the last three kilometres, the rider or riders involved is or are awarded the time of the rider or riders they were cycling with when the incident took place. His or their classification will be that of the crossing of the finish line.

If, in the wake of a fall after passing the kite marking the start of the last kilometre, a rider is unable to cross the finish line, he will be classified in last place for the stage and awarded the time of the rider or riders with whom he was cycling at the time the incident took place.

The above two articles do not apply to time trial stages or to summit finishes.

Circuit finish:
Even if a stage ends at a circuit, times are always taken at the finish line.

Track finish:
In the event of a track finish (velodrome or cinder track), times are recorded at the entry to the track, as the distance to be covered on the track is used only to distinguish between riders for the purposes of awarding stage places. On the track, the organizers may arrange for the distance between entry to the track and the finish line, increased by at most one complete lap, to be cycled.
Race commissaires reserve the right to stop any peloton at the entry to the stadium if the peloton arrives at the track when the latter is already congested on account of the preceding peloton or pelotons, allowing them to resume only when the track is clear again.
Consequently, **places may become reversed** in terms of the classification noted by the timekeeper and that recorded by the finish judge.
For the purposes of the overall classification, only the time recorded by the timekeeper at the entry to the velodrome will count, irrespective of the final place of the rider or riders in the stage classification.
In the event of a slippery track, the commissaires and the finish judge may base their calculations on the classification recorded by the timekeeper.

2.10 Formulae used for timekeeping calculations

D = distance in kilometres

T = time in hours, minutes, seconds

M = average in kilometres/hour

* The following examples will enable you to get a better idea of the old method, making calculations to the second, and the method using the Casio calculator.

Calculating an average

Distance: 147,600 km in the course of 3 h 16' 47'':

$$M = \frac{D}{T}$$

Method without Casio calculator

3 h	=	3 x 3600'' =	**10800''**
16'	=	16 x 60'' =	**960''**
47''	=		**47''**
		i.e.:	**11807''**

$$\frac{147{,}600 \text{ km} \times 3600''}{11807''} = 45.003811 \text{ km/h, i.e.: } 45.003 \text{ km/h}$$

Method with Casio calculator

147.600 [÷] 3 [° ' "] 16 [° ' "] 47 [° ' "] [=] 45.003811 km/h

Calculating a distance (same parameters)

D = T x M

Method without Casio calculator

$$\frac{11807}{3600} \times 45.003811 = 147.600 \text{ km}$$

Method with Casio calculator

3 [° ' "] 16 [° ' "] 47 [° ' "] [+] 45.003811 [=] 147.600 km

Calculating a time (same parameters)

$$T = \frac{D}{M}$$

Method without Casio calculator

$$T = \frac{147.600 \times 3600}{45.003811} = 11807'' \text{ i.e. } 3 \text{ h } 16' \ 47''$$

11807	60	
5800	196	60
407	**16'**	**3 h**
47''		

Method with Casio calculator

147.600 [÷] **45.003811** [=] [SHIFT] [° ' "] **3°16°47. i.e. 3 h 16' 47"**

Nowadays, to calculate average, distance or time, a timekeeper will always use a specific calculator. However, it is important to be able to make these calculations without using a specific calculator.

Calculating a distance travelled in a given time

Calculating the distance travelled in the course of 1 hour

- 10.150-km circuit
- 3 laps of this circuit completed in 51' 17"
- At the end of the 4th lap, the stopwatch indicated: 1 h 07' 29"

Example: At the end of the 3rd lap (51' 17"), in order to obtain the race time, the following thus remains: 1 h = 60' – 51' 17" = **8' 43"**
Then calculate the time taken to travel the 4th lap:

Time over the 3rd lap:	1 h 07' 29"
Time over the 3rd lap:	0 h 51' 17"
Time of the 4th lap:	**0 h 16' 12"**

2 18

To calculate the distance covered in the course of 8' 43" (time remaining to be travelled in order to obtain the time at the end of the 3rd lap), it will be necessary to divide the distance of the 4th lap (10.150 km) by the time of the 4th lap (16' 12"), and to multiply it by the time needed to obtain the time (8' 43").

$$\frac{10.150 \times 8' 43''}{16' 12''} = 5.4613683 \text{ km}$$

This distance thus being added to the 3 10.150-km laps travelled after 51' 17".

The distance covered in the course of 51' 17":	30.450
Supplementary distance over 8' 43":	5.461
Distance covered in the course of 1 hour:	**35.911 km**

2.11 Calculating a time for a given distance

Calculating time taken to cover 50 km

In the course of 1 h 18' 07", he has covered 5 laps of a 9.400-km circuit.
At the end of the 6th lap, the stopwatch indicated 1 h 33' 23"

Example: At the end of the 5th lap, the following distance was still to be covered: 50.000 – 47.000 = **3.000 km**
Time taken to cover the 6th lap:

Time to cover the 6th lap:	1 h 33' 23"
Time to cover the 5th lap:	- 1 h 18' 07"
Time of the 6th lap:	**0 h 15' 16"**

The time taken to cover the 6th 9.400-km lap is thus 15' 16".
To calculate the distance remaining to be covered after the 5th lap in order to obtain the 50.000 km, (**3.000 km**), the following calculation will be made:

$$\frac{\text{Time of the 6th lap} \times \text{distance remaining to be covered for the 50 km}}{\text{Lap distance}} \text{ i.e.: } \frac{15' 16'' \times 3.000}{9.400} = 4' 52'' \ 34/100, \text{ rounded to } \mathbf{4' 52''}$$

To cover the 50.000 km, riders will thus have taken:

1 h 18' 07"	(time recorded at the end of 47.000 km)
+ 0 h 04' 52"	(time to cover the additional 3.000 km)
1 h 22' 59"	(time for the 50.000 km)

2.12 Calculating a time and a distance as a function of specific data (in the event of a rider involved in an accident)

A peloton is travelling at a constant speed of 42.300 km per hour.
Rider A is involved in an accident and stopped for 1' 47''.
This same rider A, after having received breakdown assistance, travels at a constant speed of 44,200 km/h.
How long will he need to rejoin the peloton, and after what pursuit distance?
Example: Speed gap between rider A and the peloton:

Rider A speed:	44.200
Peloton speed:	42.300
Speed gap:	1.900

Rider A thus covers, each hour, 1.900 km more than the peloton.
While rider A was stopped, i.e. 1' 47'', the peloton, at its average speed of 42.300 km/h, covered:

42.300 x 1' 47'' = 1.25725 km

- The time needed by rider A to rejoin the peloton will thus be 1.25725 km (A's delay); divide by 1.900 km (speed gap between A and the peloton), i.e. 0°39°42.1.
  1.25725 km ÷ 1.900 km = SHIFT ° ' " = 0° 39° 42.1
- The distance needed by rider A to rejoin the peloton will thus be: 44.200 km/h (average of A) multiplied by 39' 42.1 (time taken by A to rejoin the peloton), i.e.:
  44.200 km/h x 39' 42.1 = 29.246894 km

19 2

For the purposes of monitoring, this distance may be checked as follows:
Distance covered by the peloton since A's stop:
42.300 km/h x (1' 47'' + 39' 42.1, i.e. 41' 29.1) = 29.246925 km
The 31 mm difference recorded is the result of the calculator rounding off numbers.

2.13 Calculating a race time

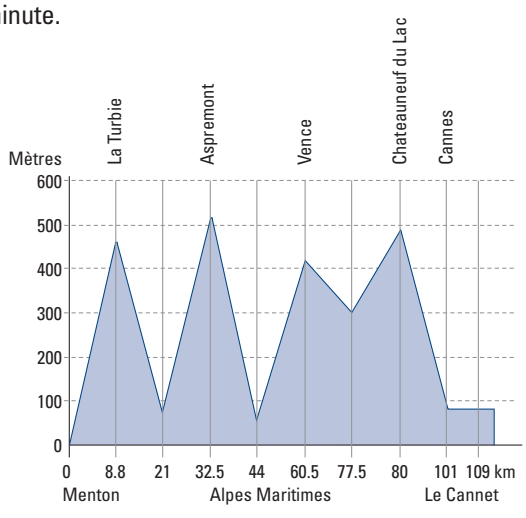
For the purposes of TV requirements, the «MENTON – LE CANET» stage has to arrive at 15 h 30 min.
Using the following stage profile:
- he climb parts are covered at 22 km/h on average,
- the descent parts are covered at 53 km/h on average,
- the flat part is covered at 40 km/h on average.

Once again, the formula to be used is:

Distance ÷ **A**verage = **T**ime

NB: Each intermediate passage time will be rounded to the nearest minute.

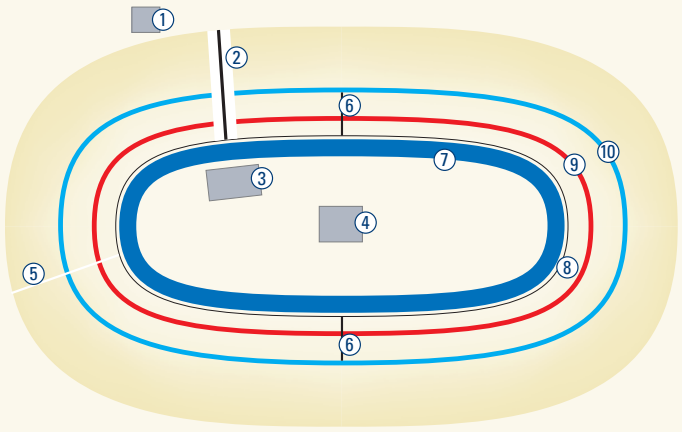
km	Location	Section distance	Average in quest.	Gross time	Rounded time	Provisional time
0.0	Menton	0.0				**12 h 21'**
8.8	Sommet de la Turbie	8.8	22.0	24' 00''	24'	12 h 45'
21.0	Bas de la Turbie	12.2	53.0	13' 48''	14'	12 h 59'
32.5	Sommet d'Aspremont	11.5	22.0	31' 21''	31'	13 h 30'
44.0	Bas d'Aspremont	11.5	53.0	13' 01''	13'	13 h 43'
60.5	Sommet de Vence	16.5	22.0	45' 00''	45'	14 h 28'
77.5	Bas de Vence	17.0	53.0	19' 14''	19'	14 h 47'
80.0	Sommet de Chateauneuf	2.5	22.0	6' 49''	7'	14 h 54'
101.0	Bas de Chateauneuf	21.0	53.0	23' 46''	24'	15 h 18'
109.0	Le Canet	8.0	40.0	12' 00''	12'	**15 h 30'**
		109			189' **3 h 09'**	



i.e.: Start at:12 h 21' Race time: 3 h 09' Finish time: 15 h 30

3. Track

Presentation of a standard 250-m piste layout (Hyères-Bordeaux):



1. Referee judge podium
2. Finish line
3. Finish judge's podium
4. Starter's podium
5. 200 m line
6. Back straight
7. Blue band
8. Measuring line
9. Sprinter's line (red)
10. Stayer's line (blue)

3.1 Recap of international regulations

Regulation records

Road records are not recognized. Only track performances are recognized, without trainers.

UCI-recognized records

ALL CATEGORIES	Flying start:	200 m – 500 m
MEN	Standing start:	1 km – 4 km – 4 km per team – hour – best performance in the hour.
JUNIORS MEN	Standing start:	1 km – 3 km – 4 km per team
WOMEN	Standing start:	500 m – 3 km – heure – best performance in the hour
JUNIORS WOMEN	Standing start:	500 m – 2 km

Example of records recognized by the FFC

MEN	Flying start:	200 m – 500 m – 1 km
	Standing start:	500 m – 1 km – 4 km – Hour[1] and best performance in the hour
		4 km per team.
WOMEN	Flying start:	200 m – 500 m
	Standing start:	500 m – 1 km – 3 km – Hour[1]
JUNIORS BOYS	Flying start:	200 m – 500 m – 1 km
	Standing start:	500 m – 1 km – 2 km
JUNIORS GIRLS	Flying start:	200 m – 500 m
	Standing start:	500 m – 1 km – 2 km
CADETS	Flying start:	200 m
	Standing start:	2 km
FEMALE CADETS	Flying start:	200 m

[1] The hour record cannot be beaten by less than one metre.

3.2 Recording times in various track events

Individual sprint

200 m flying start

- Qualifying events are organized over 200 m, time trial, flying start.
- Electronic timekeeping is to 1000th of a second using contact strips, matched by manual timekeeping to 100th of a second.
- The time recorded for each competitor will enable commissaires to establish the composition of the various series.
- In the event of a dead heat, riders are distinguished by means of a drawing of lots.
- The timekeeper will record the time for each competitor in order to forward these times to the panel secretary responsible for establishing series.
- The timekeeper will supervise the lap counter and the bell.

Sprint tournament

- As above, the timekeeper records times over the last 200 m.

Team sprint

- Events are contested by teams each composed of 3 riders (men) over 3 track laps.
- Each rider must complete one lap and then move away on crossing the finish line.
- The rider in the inside lane is held by the starting block, or by a principal commissaire, and must lead until the first changeover, when he is replaced by the next rider for the second lap, the third rider finishing the event. The time will be recorded at the front wheel of the third rider (changeovers taking place within an area within fifteen metres in front of and behind the finish line).
- The aim is to ascertain the 4 or 8 best teams to participate in the first lap or directly in the finals.

Competition organization

It is organized in two or three phases, in accordance with UCI or NF regulations:

- qualifying heats designating the best 4 or 8 teams on the basis of times achieved,
- final heats:
  - ► 1st lap: the best 8 times will race against one another: 1st against 8th, 2nd against 7th, etc., then finals: the four victorious teams will race against one another as below
  - ► or direct finals: teams achieving the two best times will contest the final for first and second place, and the two others will contest the final for third and fourth places.

Teams beaten in the first round of the competition will be classified in 5th to 8th place, on the basis of the times achieved at that stage of the competition. In the case of direct finals, it will be the times of the heats that will also establish the 5th to 8th place classification.

NB: In the event of a dead heat in terms of time at the finish, it is the best time achieved in the last lap that will distinguish between the teams, hence the obligation to record times "lap-by-lap".

Individual sprint

Times are recorded every half-lap to 1/1000 of a second, the electronic stop watch or the starting block or blocks being triggered by the starter's pistol, matched by manual timekeeping. Intermediate time recordings are important in the event of an acknowledged accident (cf. the explanations given below).

Qualifying heats

Start using starting blocks, otherwise use two principal commissaires, 2 riders on the track, start on back straights, strongest against strongest, weakest against weakest, the best times not being pitted against one another, recording of times to 1000th of a second.
After the qualifying time classification, the UCI or NF regulations will establish the organization for the remainder of the tournament, for the final phases.

Finals

During finals, if a rider catches up another rider, the race is terminated.
A rider is deemed to have been caught up when his opponent's bicycle crankset is alongside his own crankset.
Riders beaten in the qualifying heats will be classified on the basis of the time they have achieved in those heats from 5th place.

Evolution of the tournament

In the first half-lap, in the event of a recognised or un-recognised mishup, irrespective of the level of the event, the race is stopped and immediately re-run.

After the first half-lap, during monitoring distinguish properly between two important aspects:

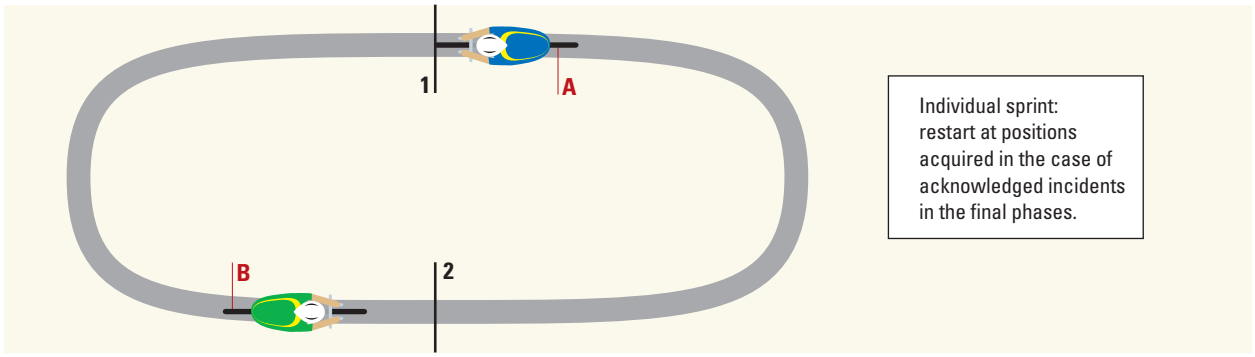
1. **Qualifying phases established on the basis of time**, therefore no race stoppage after the first half-lap in the case of a recognised or un-recognised mishup. Only the rider who has suffered a recognised or un-recognised mishup will make another attempt at the end of the qualifying heats or of the first round. The other rider will continue.

   NB: In qualifying heats, any rider who is caught up continues, in order to have his time recorded, and must not slipstream the rider who has caught him up or overtake him, subject to disqualification.

2. **Finals**: in the event of an accident, the following provisions will be applied:
   - **first half-lap** restart in all cases
   - **after the first-lap** and up to the last km or 500 m

   Riders restart at the half-lap point of their last passage with leading rider **A** on the line and rider B with **the delay** in terms of distance calculated as follows:

3 22



Individual sprint: restart at positions acquired in the case of acknowledged incidents in the final phases.

As the sprint is timed for each competitor, half-lap by half-lap, the last time recording made before the incident is available.
If the last passage at 2 500 m gave:

rider **A** in the lead = **3'11''98** and rider **B** delayed = **3'13''76**
rider **B** thus has a delay of: **3'13''76 – 3'11''98 = 1''78**

and he will have to restart with a delay corresponding to the distance he covered during that period.
Rider **B** having covered 2 500 m in 3'13''76, his delayed time being 1''78, this represents a distance of:

$$\frac{2\,500 \times 1''78}{3'13''76} = \frac{2\,500 \times 1{,}78}{193{,}76} = 22{,}96 \text{ metres}$$

the restart will thus be given at the following positions:
- rider **A**, at point **1**
- rider **B**, 22,96 m before point **2**

The riders will thus restart at the positions acquired at the time of: **3'11''98**
It will suffice to add to this time that achieved by each of the 2 riders in the second part of the sprint in order to obtain the total time for each competitor.

Time recorded by rider A for his second part of the race: 1' 56'' 79/100
Time recorded by rider B for his second part of the race: 1' 58'' 42/100

Total time for A:	before the incident:	3' 11'' 98/100
	after the incident:	1' 56'' 79/100
	Total:	5' 08'' 77/100
Total time for B:	before the incident:	3' 11'' 98/100
	after the incident:	1' 58'' 42/100
	Total:	5' 10'' 40/100

COMMENT
Do not calculate the gap on the basis of the average of the fastest rider because we would no longer obtain the actual gap when rider **A** passes at **1** but the lead of rider **A** when rider **B** passes at **2**, which is not timed and would no longer give the true position at the time of 3'11''98.

Last kilometre (500 m)
If one of the riders is involved in an accident, the result is established at that point, the leading rider being declared the winner. The average achieved in the last half-lap enables the time to be attributed to him to be calculated.
NB: Only one restart is ever authorized after an accident, authorization is never given for a single restart.

3.3 Team sprint

- Two teams of 4 riders race over a distance of 4 km.
- Teams start at two opposite points on the track (back straights).
- The rider in the inside lane is held by the starting block or by a principal commissaire.
- The winning team is the team recording the best time or catching up the other team.
- The team's time is recorded at the front wheel of the 3rd rider in each team.
- Intermediate times are recorded at each half-lap, on the front wheel of the 1st rider.

Heats

- **Tracks under 400 m**, each team will race on its own, time trial.
- **Tracks 400 m and over**, commissaires will pit against one another 2 teams presumed to be of the same standing, although the 2 teams that are presumed to be the best teams will not race against one another.
- **Any team that is caught up finishes so its time can be recorded.** A team is caught up when an opposing team (at least 3 riders cycling together) has caught up to within a distance equal to one metre.
- After the time classification of the heats, the UCI or NF regulations will establish the organization of the tournament for the final phases.

Finals

- During finals, if one team catches up another team, the race is terminated.
- Teams beaten in the heats will be classified on the basis of the time they have achieved in those heats from 5th place and taking into account UCI regulations regarding teams suffering incidents and accident of various types.

3.4 Kilometre, 500 m, standing start

- These are timed time trial events, with a standing start. Competitors are held by starting blocks or by a principal commissaire.
- The start order is established by the drawing of lots. During championships or official competitions, the first 10 classified from the previous year will start last in the reverse order of the classification.
- Time recording: when the starter's countdown has finished, the start is signalled by means of the pistol, which opens the starting block and triggers the electronic stopwatch. Finish times are recorded by the stopwatch being triggered as the front wheel passes over the contact strip.
- All competitors must make their attempt during one and the same meeting. If, for any reason (e.g. rain) these events cannot be completed, the times recorded are not taken into account and all participants will have to race again at the next meeting.
- ***NB:*** In the event of a dead heat, riders are classified as dead heats. In terms of the podium, they will each be awarded an identical medal.

3.5 Points race

- This race is a speciality in which the classification is established on the basis of the cumulative points won by the riders during sprints and laps they have won. The notion of time is optional.
- The start is a flying start after a neutralized grouping lap. The timekeeper is responsible for monitoring the lap counter and the bell. It is set to the leading riders in terms of distance, the bell having to be sounded only for riders who will score points, and not beyond, action to be carried out when the riders enter the straight.
- Timekeepers will record the race time in order to be able to forward the average to the announcer, who will inform the audience.

3.6 Madison

- A Madison race is a race contested over intermediate team sprints by 2 riders.
- The classification is established in terms of distance and of points won by the riders.
- The start is a standing start with one rider from each team, for the first part of the relay.
- The event generally takes place over a given distance, rarely over a given time.
- In distance events, the timekeeper's role is identical to that for a points race.
- In events run over a given time, the timekeeper will sound the finish bell when the time remaining is less than the time for one lap of the track.
- The classification will be established at the finish line, one lap after the bell.

The notion of time is optional

3.7 Scratch

- Individual race contested over a statutory distance in accordance with the competitors' category.
- The start is a flying start, after a neutralized grouping lap.
- The classification is established during the final sprint, riders being classified as a function of the laps won or lost and the order in which they cross the finish line.
- The timekeeper will supervise the lap counter and the finish bell.

The notion of time is optional

3.8 Elimination

- Individual race in which the last rider in each intermediate sprint is eliminated on the basis of the position of the rear wheel at the finish line.
- During the final sprint (2 riders), the classification will be established on the basis of the front wheel when the finish line is crossed.

The notion of time is optional

3.9 Keirin

- Riders race against one another in a sprint after having completed a certain number of laps (at most, close to 2000 m) behind a coach on a moped who leaves the track 600 to 700 m before the finish.
- Sprints are judged on the basis of the rules for a sprint and the timekeeper will record the time of the last 200 m in each heat.
- He will also monitor the lap counter and the bell.
- The timekeeper will calculate the average speed of the coach, lap by lap, in order to check his progress and the terminal speed of his last lap before he moves off in order to allow the racers to finish the sprint. This enables the judge referee to indicate to the coach whether he is complying with the speed required by the regulations.

3.10 Records

- Records must be timed electronically to 1000th of a second, lap by lap.
- Electronic timekeeping for record attempts of one hour is matched by manual timekeeping carried out by federal timekeepers.
- The timekeeper must stand on the passage line of the candidate attempting the record, on the track, either inside or outside same.
- A passage time may never be made on the basis of guess work at a point on the track where the timekeeper is not standing.
- The original timekeeping sheets, drawn up lap by lap, must all be signed by the timekeepers, as must the tape recording the times of the electronic timer.
- If the length of the track does not correspond to a sub-multiple of a kilometre, it is, for certain distances, necessary to complete a fraction of a lap in addition to complete laps.
- This additional distance must be covered at the start in order, after that, to have a number of complete laps to be covered. The timekeeper must stand at the start line in order, then, to take up position at the finish line where each passage of the candidate attempting the record is recorded.
- To that end, the additional distances to be covered in order to achieve a set number of kilometres must be marked on the measuring line.
- Timekeepers and commissaires must check these markings before attempts.

The establishment of a record over a distance in a given time, may be the subject of a calculation in order to determine the exact performance as mentioned below:
In the case of calculating distances travelled in a given time, for example the record for the hour, the candidate attempting the record must, when the time has expired, finish the additional lap. The time for the last lap makes it possible to determine, by means of the calculation, the average distance travelled.

$$D = (LPi \times TC) + DiC$$

$$DiC = \frac{LPi \times TRC}{TTC}$$

In which:

D: distance travelled in the hour
DiC: additional distance
LPi: track length
TTC: additional-lap time
TRC: time still to run at the start of the last lap
TC: number of complete laps before the last lap

The distance travelled is rounded down to the nearest metre. The record cannot be beaten by less than one metre.
As a function of the average time per lap of the track by the candidate attempting the record, the timekeeper must be ready to trigger the bell announcing the last lap when the time still to run is less than the average time achieved for a lap of the track.
The end of the attempt is announced by two pistol shots when the rider crosses the finish line after the time envisaged has expired.
If, between the expiry of the time indicating the end of the attempt and the end of the last lap, an unforeseen incident, puncture, fall, etc. does not enable the complete lap to be finished, it is the time for the previous lap that would be used to calculate the additional distance travelled.
For any record attempt, the blue-band part must be rendered unusable by means of the fitting of beading 0.50 m long and 0.08 m thick placed at the bends, every 5 metres.
A record broken on the same day (by the same rider) is not ratified.
A record cannot be broken by a distance of under one metre.

Starting blocks

Starting blocks and electronic timing are mandatory in all time recording attempts with a standing start activated by the starter's pistol.

3.11 Example of the hour record established by Tony Rominger

On 5 November 1994, at the Bordeaux Velodrome (250 m), Tony ROMINGER broke the hour record.
He completed 221 full laps in 59' 57'' 434/1000. The 222nd lap (additional lap) was completed in 15'' 554/1000.

1) Calculate this record, writing down your operations.
2) In the knowledge that he used a gear ratio of 9.50 m, what was his pedalling rate?

Résultat

1) D = LPi x TC + DiC
   Distance travelled in 59' 57'' 434/1000 = 250 m x 221 laps = 55 250 m
   Time still to be covered at the end of the 221st lap to make the hour:
   1 h = 60' – 59' 57'' 434/1000 = 2'' 566/1000
   Distance travelled in the 222nd lap in 2'' 566/1000:
   Track length: $\frac{250 \times 2.566}{15.554} = 41.24341$ m
   Time for the 222nd lap
   Distance travelled in the hour:

Distance covered in:	59' 57'' 434/1000	55 250'00000 m
Distance covered in:	2'' 566/1000	41.24341 m
	60' 00'' 000/1000	55 291.24341 m
Record ratified as	**55.291 km**	

2) Calculation: 55291 m ÷ 9.50 m = 5820.10 (i.e. number of revolutions of the crankset)
   5820 tp ÷ 60' = 97 laps per minute (pedalling frequency)

3 26

4. Cyclo-cross

Cyclo-cross events are run at circuits in accordance with categories of age and class and over a given time. Notions of time per lap are therefore important, and regulations may change. We would suggest that at the start of each season you note down the event durations for each category.

A) In events, the timekeeper is designated and will be responsible for calculating the number of laps to be completed for a given time for the event depending on the category.
The timekeeper will trigger the stopwatch when the riders are released and will record the time taken for the part before entry to the circuit (if appropriate) and will then calculate the actual time of the first lap of the circuit, with the order of passage of the first 10 competitors and their distances, and he will proceed in the same way for each lap. He will forward these orders of passage and distances to the announcer so that the latter can inform the audience.

At the end of the 2nd lap: he will calculate the average time taken for the first 2 laps so as immediately, when the leading man passes, to post up the number of laps remaining after this 2nd lap, in order to be very rapid, with the minimum of error. The correspondence table (No of laps to time) will make his calculations easier.

NB: Remember to incorporate the part before the entry to the circuit.

Example: Cyclo-cross Elites – Time 1 hour:
Part before the entry to the circuit - time taken: 18 seconds
Time to the end of the 1st lap: 4' 28''. Time to the end of the 2nd lap: 8' 42''

8' 42''
- 18''
8' 24''

8' 24'': 2 = 4' 12''
i.e. 4' 12'' per lap x 14 laps = 58' 48''
+ 18'' (entry)
59' 06''

On the above bases, the theoretical race time would therefore be 59' 06'' (for 1 hour), competitors in principle reducing their speed with the number of laps. The leading man with 14 laps will be very close to one hour.
NB: the table with 4' 15'' per lap gives 14 laps for a total of 59' 30'' + the entry part of 18''.

B) In events forming part of the regional calendar, there is in principle no designated timekeeper and this function is carried out by the finish judge.

Table giving the number of laps to be completed based on times in laps completed

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
0:03:30	0:07:00	0:10:30	0:14:00	0:17:30	0:21:00	0:24:30	0:28:00	0:31:30	0:35:00	0:38:30	0:42:00	0:45:30	0:49:00	0:52:30	0:56:00	0:59:30
0:03:45	0:07:30	0:11:15	0:15:00	0:18:45	0:22:30	0:26:15	0:30:00	0:33:45	0:37:30	0:41:15	0:45:00	0:48:45	0:52:30	0:56:15	1:00:00	
0:04:00	0:08:00	0:12:00	0:16:00	0:20:00	0:24:00	0:28:00	0:32:00	0:36:00	0:40:00	0:44:00	0:48:00	0:52:00	0:56:00	1:00:00		
0:04:15	0:08:30	0:12:45	0:17:00	0:21:15	0:25:30	0:29:45	0:34:00	0:38:15	0:42:30	0:46:45	0:51:00	0:55:15	0:59:30			
0:04:30	0:09:00	0:13:30	0:18:00	0:22:30	0:27:00	0:31:30	0:36:00	0:40:30	0:45:00	0:49:30	0:54:00	0:58:30				
0:04:45	0:09:30	0:14:15	0:19:00	0:23:45	0:28:30	0:33:15	0:38:00	0:42:45	0:47:30	0:52:15	0:57:00	1:01:45				
0:05:00	0:10:00	0:15:00	0:20:00	0:25:00	0:30:00	0:35:00	0:40:00	0:45:00	0:50:00	0:55:00	1:00:00					
0:05:15	0:10:30	0:15:45	0:21:00	0:26:15	0:31:30	0:36:45	0:42:00	0:47:15	0:52:30	0:57:45	1:03:00					
0:05:30	0:11:00	0:16:30	0:22:00	0:27:30	0:33:00	0:38:30	0:44:00	0:49:30	0:55:00	1:00:30						
0:05:45	0:11:30	0:17:15	0:23:00	0:28:45	0:34:30	0:40:15	0:46:00	0:51:45	0:57:30	1:03:15						
0:06:00	0:12:00	0:18:00	0:24:00	0:30:00	0:36:00	0:42:00	0:48:00	0:54:00	1:00:00							
0:06:15	0:12:30	0:18:45	0:25:00	0:31:15	0:37:30	0:43:45	0:50:00	0:56:15	1:02:30							
0:06:30	0:13:00	0:19:30	0:26:00	0:32:30	0:39:00	0:45:30	0:52:00	0:58:30								
0:06:45	0:13:30	0:20:15	0:27:00	0:33:45	0:40:30	0:47:15	0:54:00	1:00:45								
0:07:00	0:14:00	0:21:00	0:28:00	0:35:00	0:42:00	0:49:00	0:56:00	1:03:00								
0:07:15	0:14:30	0:21:45	0:29:00	0:36:15	0:43:30	0:50:45	0:58:00									
0:07:30	0:15:00	0:22:30	0:30:00	0:37:30	0:45:00	0:52:30	1:00:00									
0:07:45	0:15:30	0:23:15	0:31:00	0:38:45	0:46:30	0:54:15	1:02:00									
0:08:00	0:16:00	0:24:00	0:32:00	0:40:00	0:48:00	0:56:00	1:04:00									
0:08:15	0:16:30	0:24:45	0:33:00	0:41:15	0:49:30	0:57:45										
0:08:30	0:17:00	0:25:30	0:34:00	0:42:30	0:51:00	0:59:30										
0:08:45	0:17:30	0:26:15	0:35:00	0:43:45	0:52:30	1:01:15										
0:09:00	0:18:00	0:27:00	0:36:00	0:45:00	0:54:00	1:03:00										
0:09:15	0:18:30	0:27:45	0:37:00	0:46:15	0:55:30	1:04:45										
0:09:30	0:19:00	0:28:30	0:38:00	0:47:30	0:57:00											
0:09:45	0:19:30	0:29:15	0:39:00	0:48:45	0:58:30											
0:10:00	0:20:00	0:30:00	0:40:00	0:50:00	1:00:00											
0:10:15	0:20:30	0:30:45	0:41:00	0:51:15	1:01:30											
0:10:30	0:21:00	0:31:30	0:42:00	0:52:30	1:03:00											
0:10:45	0:21:30	0:32:15	0:43:00	0:53:45	1:04:30											
0:11:00	0:22:00	0:33:00	0:44:00	0:55:00	1:06:00											

5. Practical exemples
5.1. Exercices and keys

Calculating complex numbers (without calculator):

A)
3 h 15′ 16″
+ 2 h 59′ 47″

B)
3 h 59′ 47″
5 h 01′ 53″
+ 8 h 54′ 17″

C)
4 h 28′ 47″ 78/100
+ 2 h 45′ 56″ 89/100

D)
16 h 04′ 17″
- 7 h 54′ 49″

E)
13 h 40′ 50″
- 7 h 59′ 23″

F)
12 h 47′ 59″ 183/1000
- 11 h 43′ 00″ 687/1000

G)
2 h 35′ 17″
x 3

H)
1 h 16′ 59″
x 7

I)
3h 16′ 47″
x 9

J) 4 h 51′ 18″ | 4

K) 8 h 37′ 49″ 15/100th | 7

Results

A) 6 h 15′ 03″

B) 17 h 55′ 57″

C) 7 h 14 44″ 67/100

D) 08 h 09′ 28″

E) 05 h 41′ 27″

F) 01 h 4′ 58″ 496/1000

G) 7 h 45′ 51″

H) 8 h 58′ 53″

I) 29 h 31′ 03″

J) 4 h 51′ 18″ | 4
0 | 1 h
51′ | 12′
$3 \times 60 = \frac{180}{198}$ | 49″
2″ | 5/10th

K) 8 h 37′ 49″ 15/100e | 7
$1 \times 60 = \frac{60}{97}$ | 1 h
$6' \times 60 = \frac{360''}{409}$ | 13′
$3 \times 100 = \frac{300}{315}$ | 58″
45/100

Track

1) Calculating an average of the last 200 metres (rounded to the centimetre)

200 m in 10'' 56/100 =
200 m in 11'' 59/100 =
200 m in 11'' 98/100 =
200 m in 12'' 472/1000 =
200 m in 13'' 783/1000 =

2) Twenty-four hour record

On 13 August 1999, Alexandre VERGUET established a new "Record de Lorraine" over 24 hours at the Commercy Velodrome - track of 285.71 metres.

His passing times were as follows:
1783 laps in 23 h 59' 55'' 08th
1784 laps in 24 h 00' 21'' 26th

On the basis of those data, precisely determine the figures for the new record.
(Provide details of your calculations):

Results

1) 68,18181 km/h
62,12251 km/h
60,10016 km/h
57,72931 km/h
52,23826 km/h

2) 1) Distance covered in 23 h 59' 55'' 08th:
285,71 m x 1783 tours = 509420,93 m
= 509,42093 km

2) Time still to run to the end of the 1783 laps to reach 24 hours:
24 h 00' 00'' 00/100
- 23 h 59' 55'' 08/100
04'' 92/100

3) Time of the 1784th lap:
24 h 00' 21'' 26/100
- 23 h 59' 55'' 08/100
00' 26'' 18/100

4) Distance covered in the 1784th lap in 4' 92/100:
$\frac{285,71 \text{ x } 4'' \ 92/100}{26'' \ 18/100} = 53,6934$ m

5) Distance covered in 24 hours:
509420,93 m
+ 53,6934 m
509474,6234 m rounded to 509,474 km

Calculation of distances and times

Circuit event - circuit length 17.484 km

Circuit	Total Kilometres	Total Times			Time Lap by Lap			Lap Average	Results
		H	M	S	H	M	S		
1			23	48					2 h distance =
2			46	21					
3		1	08	15					4 h distance =
4			31	30					
5			53	47					6 h distance =
6		2	16	21					
7			38	29					50 km time =
8		3	01	00					
9			25	16					100 km time =
10			49	03					
11		4	12	45					200 km time =
12			37	09					
13		5	01	36					Overall average =
14		5	26	35					
15		5	52	48					
16		6	18	21					
17		6	44	22					

Complete the table on the basis of the following:

A) indicate the number of kilometres lap by lap:
B) indicate the time for each lap on the basis of the total time:
C) calculate the distance covered in 2, 4 and 6 hours:
D) calculate the time for 50, 100 and 200 km:
E) calculate the average lap by lap:
F) calculate the overall average:

Results

Circuit	Total Kilometres	Total Times			Time Lap by Lap			Lap Average	Results
		H	M	S	H	M	S		
1	17,484		23	48		23	48	44,077	2 h distanc = 92,236 km
2	34,968		46	21		22	33	46,520	
3	52,452	1	08	15		21	54	47,901	4 h distanc = 182,918 km
4	69,936		31	30		23	15	45,120	
5	87,420		53	47		22	17	47,077	6 h distanc = 267,187 km
6	104,904	2	16	21		22	34	46,486	
7	122,388		38	29		22	08	47,396	50 km time = 1 h 05' 10''
8	139,872	3	01	00		22	31	46,589	
9	157,356		25	16		24	16	43,229	100 km time = 2 h 10' 01''
10	174,840		49	03		23	47	44,108	
11	192,324	4	12	45		23	42	44,263	200 km time = 4 h 23' 27''
12	209,808		37	09		24	24	42,993	
13	227,292	5	01	36		24	27	42,905	Overall average = 44,102 km/h
14	244,776	5	26	35		24	59	41,989	
15	262,260	5	52	48		26	13	40,014	
16	279,744	6	18	21		25	33	41,058	
17	297,228	6	44	22		26	01	40,321	

5.2 Tour de Lorraine

Overall classifications for the tour de lorraine

Tour de Lorraine - stage event:

1st stage, road: 183.600 km, deadline 10%

2nd stage, road: 138.900 km, deadline 10%

3rd stage, individual time trial: 27.350 km, deadline 25%

Bonuses to finishers: 1th 10'' – 2nd 6'' – 3rd 4''

Intermediate sprint bonuses: 1th 3'' – 2nd 2'' – 3e 1''

- 1st stage, 1st sprint: 121 – 85 – 7 / 2nd sprint: 121 – 85 – 92
- 2nd stage 1st sprint: 85 – 105 – 121 / 2nd sprint: 124 – 3 – 85

Comment: rider 72 falls at 800 m from the finish line, while he was in the peloton with a time of 3 h 11' 57''.

3 teams involved, composed of 8 riders.

2 riders not registered for stage 1: body numbers 73 and 108.

At the end of the third stage, using the timekeeping judge's finish sheets and the record of time trial finishes, draw up the following:

1) the individual forms for the time trial;

2) the classification for this time trial;

3) the individual overall classifications following each time and points stage;

4) the time and points team classifications for the 1st, 2nd and 3rd stages;

5) the team overall classifications for each time and points stage;

6) the final individual overall classification;

7) the average for the event;

8) the average for the 1st-placed in the overall classification;

Teams	**Body N°**							
Ile de France	1	2	3	4	5	6	7	8
Picardie	11	12	13	14	15	16	17	18
Normandie	21	22	23	24	25	26	27	28
Bretagne	31	32	33	34	35	36	37	38
Rhône-Alpes	41	42	43	44	45	46	47	48
Pays de la Loire	51	52	53	54	55	56	57	58
Aquitaine	61	62	63	64	65	66	67	68
Auvergne	71	72	73	74	75	76	77	78
Franche-Comté	81	82	83	84	85	86	87	88
Bourgogne	91	92	93	94	95	96	97	98
Champagne	101	102	103	104	105	106	107	108
Lorraine	111	112	113	114	115	116	117	118
Alsace	121	122	123	124	125	126	127	128

				Stage N°: 1 **Actual km:** 183.600 km		**AVERAGE: 43.668 km/h DEADLINE: 10 %**	**RETIREMENTS**
						ELIMINATION TIME: 25' 14"	**15 – 41 – 34 – 58**
	Race time			**Gaps**		**FINISH DEADLINE: 4 h 37' 30"**	**82 – 88 – 68 – 113**
	H	**M**	**S**	**M**	**S**	**NON-STARTERS: 73 - 108**	**91 – 115 – 118**
1	4	12	16			54	
2	4	12	58	0	42	14 – 85 - X X X X X X X X – 63 – 65 – 25	
3	4	17	24	5	8	37_____ peloton _____ 125	
4	4	19	43	7	27	8 – 31 – 5 – 32 – 11 – 64 – 51 – 12	
5	4	21	59	9	43	17 – 66 – 76 – 94 – 122	
6	4	22	46	10	30	101 – 127	
7	4	24	16	12	00	116 – 4 – X – 47 – 53 – 42 – 46 – 81 – 77 – 107	
8						**Sweep vehicle**	
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							
29							
30							

EVENT: TOUR DE LORRAINE
DATE: Stage 1
KILOMETRES: 183,600 km
AVERAGE: 43,668

RETIREMENTS					N.S.
15	41	34	58		73
82	88	68	113		108
91	115	118			

Classification	Body No	Time			
		H	M	S	100
1	54	4	12	16	
2	14	4	12	58	
3	85		mt		
4	7		mt		
5	36		mt		
6	75		mt		
7	117		mt		
8	121		mt		
9	52		mt		
10	22		mt		
11	56		mt		
12	63		mt		
13	65		mt		
14	25		mt		
15	37	4	17	24	
16	6		mt		
17	23		mt		
18	103		mt		
19	124		mt		
20	72		mt		
21	102		mt		
22	57		mt		
23	74		mt		
24	95		mt		
25	38		mt		
26	3		mt		
27	1		mt		
28	61		mt		
29	84		mt		
30	96		mt		
31	13		mt		
32	35		mt		
33	27		mt		
34	45		mt		
35	43		mt		
36	62		mt		
37	105		mt		
38	112		mt		
39	16		mt		
40	67		mt		

Classification	Body No	Time			
		H	M	S	100
41	87	4	17	24	
42	93		mt		
43	21		mt		
44	106		mt		
45	28		mt		
46	114		mt		
47	111		mt		
48	128		mt		
49	92		mt		
50	55		mt		
51	78		mt		
52	83		mt		
53	18		mt		
54	33		mt		
55	98		mt		
56	126		mt		
57	71		mt		
58	26		mt		
59	86		mt		
60	2		mt		
61	104		mt		
62	44		mt		
63	97		mt		
64	48		mt		
65	123		mt		
66	125		mt		
67	8	4	19	43	
68	31		mt		
69	5		mt		
70	32		mt		
71	11		mt		
72	64		mt		
73	51		mt		
74	12		mt		
75	17	4	21	59	
76	66		mt		
77	76		mt		
78	94		mt		
79	122		mt		
80	101	4	22	46	
81	127		mt		
82	116	4	24	16	
83	4		mt		

Classification	Body No	Time			
		H	M	S	100
84	24	4	24	16	
85	47		mt		
86	53		mt		
87	42		mt		
88	46		mt		
89	81		mt		
90	77		mt		
91	107		mt		
92					
93					
94					
95					
96					
97					
98					
99					
100					
101					
102					
103					
104					
105					
106					
107					
108					
109					
110					
111					
112					
113					
114					
115					
116					
117					
118					
119					
120					
121					
122					
123					
124					
125					

EVENT: TOUR DE LORRAINE
DATE: CLASSEMENT GENERAL 1st stage
KILOMETRES: 183,600 km
AVERAGE: 43,668

RETIREMENTS					N.S.
15	41	34	58		73
82	88	68	113		108
91	115	118			

Classification	Body No	Time			
		H	M	S	Pl.
1	54	4	12	16	1
2	85	4	12	50	3
3	14	4	12	52	2
4	121	4	12	52	8
5	7	4	12	57	4
6	36	4	12	58	5
7	75	4	12	58	6
8	117	4	12	58	7
9	52	4	12	58	9
10	22	4	12	58	10
11	56	4	12	58	11
12	63	4	12	58	12
13	65	4	12	58	13
14	25	4	12	58	14
15	92	4	17	23	49
16	37	4	17	24	15
17	6	4	17	24	16
18	23	4	17	24	17
19	103	4	17	24	18
20	124	4	17	24	19
21	72	4	17	24	20
22	102	4	17	24	21
23	57	4	17	24	22
24	74	4	17	24	23
25	95	4	17	24	24
26	38	4	17	24	25
27	3	4	17	24	26
28	1	4	17	24	27
29	61	4	17	24	28
30	84	4	17	24	29
31	96	4	17	24	30
32	13	4	17	24	31
33	35	4	17	24	32
34	27	4	17	24	33
35	45	4	17	24	34
36	43	4	17	24	35
37	62	4	17	24	36
38	105	4	17	24	37
39	112	4	17	24	38
40	16	4	17	24	39

Classification	Body No	Time			
		H	M	S	Pl.
41	67	4	17	24	40
42	87	4	17	24	41
43	93	4	17	24	42
44	21	4	17	24	43
45	106	4	17	24	44
46	28	4	17	24	45
47	114	4	17	24	46
48	111	4	17	24	47
49	128	4	17	24	48
50	55	4	17	24	50
51	78	4	17	24	51
52	83	4	17	24	52
53	18	4	17	24	53
54	33	4	17	24	54
55	98	4	17	24	55
56	126	4	17	24	56
57	71	4	17	24	57
58	26	4	17	24	58
59	86	4	17	24	59
60	2	4	17	24	60
61	104	4	17	24	61
62	44	4	17	24	62
63	97	4	17	24	63
64	48	4	17	24	64
65	123	4	17	24	65
66	125	4	17	24	66
67	8	4	19	43	67
68	31	4	19	43	68
69	5	4	19	43	69
70	32	4	19	43	70
71	11	4	19	43	71
72	64	4	19	43	72
73	51	4	19	43	73
74	12	4	19	43	74
75	17	4	21	59	75
76	66	4	21	59	76
77	76	4	21	59	77
78	94	4	21	59	78
79	122	4	21	59	79
80	101	4	22	46	80
81	127	4	22	46	81
82	116	4	24	16	82
83	4	4	24	16	83

Classification	Body No	Time			
		H	M	S	Pl.
84	24	4	24	16	84
85	47	4	24	16	85
86	53	4	24	16	86
87	42	4	24	16	87
88	46	4	24	16	88
89	81	4	24	16	89
90	77	4	24	16	90
91	107	4	24	16	91
92					
93					
94					
95					
96					
97					
98					
99					
100					
101					
102					
103					
104					
105					
106					
107					
108					
109					
110					
111					
112					
113					
114					
115					
116					
117					
118					
119					
120					
121					
122					
123					
124					
125					

Daily team classification

Tour de Lorraine: stage 1

ILE DE FRANCE				1 to 8
4	7	4	12	58
16	6	4	17	24
26	3	4	17	24
46		12	47	46

PICARDIE				11 to 18
2	14	4	12	58
31	13	4	17	24
39	16	4	17	24
72		12	47	46

NORMANDIE				21 to 28
10	22	4	12	58
14	25	4	17	58
17	23	4	17	24
41		12	43	20

BRETAGNE				31 to 38
5	36	4	12	58
15	37	4	17	24
25	38	4	17	24
45		12	47	46

RHONE-ALPES				41 to 48
34	45	4	17	24
35	43	4	17	24
62	44	4	17	24
131		12	52	12

P. DE LA LOIRE				51 to 58
1	54	4	12	16
9	52	4	12	58
11	56	4	12	58
21		12	38	12

AQUITAINE				61 to 68
12	63	4	12	58
13	65	4	12	58
28	61	4	17	24
53		12	43	20

AUVERGNE				71 to 78
6	75	4	12	58
20	72	4	17	24
23	74	4	17	24
49		12	47	46

F-COMTE				81 to 88
3	85	4	12	58
29	84	4	17	24
41	87	4	17	24
73		12	47	46

BOURGOGNE				91 to 98
24	95	4	17	24
30	96	4	17	24
42	93	4	17	24
96		12	52	12

CHAMPAGNE				101 to 108
18	103	4	17	24
21	102	4	17	24
37	105	4	17	24
76		12	52	12

LORRAINE				111 to 118
7	117	4	12	58
38	112	4	17	24
46	114	4	17	24
91		12	47	46

ALSACE				121 to 128
8	121	4	12	58
19	124	4	17	24
48	128	4	17	24
75		12	47	46

1st PDL 12H 38' 12'' - 21 pts
2nd NOR 12H 43' 20'' - 41 pts
3rd AQU 12H 43' 20'' - 53 pts
4th BRE 12H 47' 46'' - 45 pts
5th IDF 12H 47' 46'' - 46 pts
6e AUV 12H 47' 46'' - 49 pts
7th PIC 12H 47' 46'' - 72 pts
8th FRC 12H 47' 46'' - 73 pts
9th ALS 12H 47' 46'' - 75 pts
10th LOR 12H 47' 46'' - 91 pts
11th CHA 12H 52' 12'' - 76 pts
12th BOU 12H 52' 12'' - 96 pts
13th RHO 12H 52' 12'' - 131 pts

				Stage N°: 2 **Actual km:** 138.900 km		**AVERAGE: 43.451 km/h DEADLINE: 10 %** **ELIMINATION TIME: 19' 11"**	**RETIREMENTS** **21 – 78 – 18 – 123 – 38 – 86**
	Race time			**Gaps**		**FINISH DEADLINE: 3 h 30' 59"**	**55 – 125 – 104**
	H	**M**	**S**	**M**	**S**	**NON-STARTERS: 28**	**106 – 126 – 128**
1	3	11	16			85 – 22 – 7 – X X X X X X X X – 105 – 102 – 48	
2	3	11	58	0	42	96 – 122 ____ peloton _____ 27 – 23 – 31	
3	3	14	24	5	8	74 – 32 – 95	
4	3	16	43	7	27	103 – 57 – X – 2 – 5 – 98 – 65 – 83	
5	3 (3)	11 (17)	57 (02)	0 (5)	09 (14)	72 (peloton time 3 h 11' 57») fall at 800 m	
6	3	19	27	7	39	71 – 76 – 116 – 8 – 77	
7						**Sweep vehicle**	
8							
9							
10							
11							
12							
13							
14							
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16							
17							
18							
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20							
21							
22							
23							
24							
25							
26							
27							
28							
29							
30							

EVENT: TOUR DE LORRAINE
DATE: Stage 2
KILOMETRES: 138,900 km
AVERAGE: 43,451

RETIREMENTS					N.S.
21	78	18	123		28
38	86	55	125		
104	106	126	128		

Classification	Body No	Time			
		H	M	S	100
1	85	3	11	48	
2	22		mt		
3	7		mt		
4	67		mt		
5	53		mt		
6	37		mt		
7	51		mt		
8	66		mt		
9	93		mt		
10	105		mt		
11	102		mt		
12	48		mt		
13	96	3	11	57	
14	122		mt		
15	92		mt		
16	42		mt		
17	24		mt		
18	107		mt		
19	127		mt		
20	112		mt		
21	63		mt		
22	26		mt		
23	43		mt		
24	62		mt		
25	3		mt		
26	13		mt		
27	1		mt		
28	46		mt		
29	54		mt		
30	117		mt		
31	84		mt		
32	33		mt		
33	14		mt		
34	4		mt		
35	6		mt		
36	11		mt		
37	61		mt		
38	81		mt		
39	114		mt		
40	101		mt		

Classification	Body No	Time			
		H	M	S	100
41	97	3	11	57	
42	94		mt		
43	35		mt		
44	44		mt		
45	56		mt		
46	64		mt		
47	47		mt		
48	52		mt		
49	17		mt		
50	36		mt		
51	87		mt		
52	111		mt		
53	45		mt		
54	121		mt		
55	124		mt		
56	16		mt		
57	25		mt		
58	75		mt		
59	27		mt		
60	23		mt		
61	31		mt		
62	74	3	14	27	
63	32		mt		
64	95		mt		
65	103	3	16	54	
66	57		mt		
67	12		mt		
68	2		mt		
69	5		mt		
70	98		mt		
71	65		mt		
72	83		mt		
73	72	3	11	57	
74	71	3	19	27	
75	76		mt		
76	116		mt		
77	8		mt		
78	77		mt		
79					
80					
81					
82					
83					

Classification	Body No	Time			
		H	M	S	100
84					
85					
86					
87					
88					
89					
90					
91					
92					
93					
94					
95					
96					
97					
98					
99					
100					
101					
102					
103					
104					
105					
106					
107					
108					
109					
110					
111					
112					
113					
114					
115					
116					
117					
118					
119					
120					
121					
122					
123					
124					
125					

EVENT: TOUR DE LORRAINE
DATE: OVERALL CLASSIFICATION, Stage 2
KILOMETRES: 322.500 km
AVERAGE: 43.559

RETIREMENTS					N.S.
21	78	18	123		28
38	86	55	125		
104	106	126	128		

Classification	Bosy No	Time			
		H	M	S	Pl.
1	54	7	24	3	30
2	85	7	24	24	4
3	22	7	24	40	12
4		7	24	41	7
5		7	24	48	62
6		7	24	49	35
7		7	24	55	33
8		7	24	55	37
9		7	24	55	55
10		7	24	55	56
11		7	24	55	57
12		7	24	55	64
13		7	24	55	71
14		7	29	10	47
15		7	29	12	21
16		7	29	12	32
17		7	29	12	44
18		7	29	12	51
19		7	29	12	76
20		7	29	18	74
21		7	29	19	51
22		7	29	20	64
23		7	29	21	43
24		7	29	21	51
25		7	29	21	54
26		7	29	21	57
27		7	29	21	58
28		7	29	21	58
29		7	29	21	60
30		7	29	21	60
31		7	29	21	65
32		7	29	21	75
33		7	29	21	77
34		7	29	21	80
35		7	29	21	85
36		7	29	21	86
37		7	29	21	87
38		7	29	21	92
39		7	29	21	92
40		7	29	21	93

Classification	Bosy No	Time			
		H	M	S	Pl.
41	16	7	29	21	95
42	111	7	29	21	99
43	97	7	29	21	104
44	44	7	29	21	106
45	65	7	29	52	84
46	51	7	31	31	80
47	11	7	31	40	107
48	64	7	31	40	118
49	31	7	31	40	129
50	74	7	31	51	85
51	95	7	31	51	88
52	66	7	33	47	84
53	122	7	33	56	93
54	94	7	33	56	120
55	17	7	33	56	124
56	32	7	34	10	133
57	103	7	34	18	83
58	57	7	34	18	88
59	83	7	34	18	124
60	98	7	34	18	125
61	2	7	34	18	128
62	127	7	34	43	100
63	101	7	34	43	120
64	53	7	36	4	91
65	24	7	36	13	101
66	42	7	36	13	103
67	107	7	36	13	109
68	46	7	36	13	116
69	4	7	36	13	117
70	81	7	36	13	127
71	47	7	36	13	132
72	5	7	36	37	138
73	12	7	36	37	141
74	71	7	36	51	131
75	8	7	39	10	144
76	76	7	41	26	152
77	116	7	43	43	158
78	77	7	43	43	168
79					
80					
81					
82					
83					

Classification	Bosy No	Time			
		H	M	S	Pl.
84					
85					
86					
87					
88					
89					
90					
91					
92					
93					
94					
95					
96					
97					
98					
99					
100					
101					
102					
103					
104					
105					
106					
107					
108					
109					
110					
111					
112					
113					
114					
115					
116					
117					
118					
119					
120					
121					
122					
123					
124					
125					

Daily team classification

Tour de Lorraine: stage 2

ILE DE FRANCE				1 to 8
3	7	3	11	48
25	3	3	11	57
27	1	3	11	57
55		9	35	42

PICARDIE				11 to 18
26	13	3	11	57
33	14	3	11	57
36	11	3	11	57
95		9	35	51

NORMANDIE				21 to 28
2	22	3	11	48
17	24	3	11	57
22	26	3	11	57
41		9	35	42

BRETAGNE				31 to 38
6	37	3	11	48
32	33	3	11	57
43	35	3	11	57
81		9	35	42

RHONE-ALPES				41 to 48
12	48	3	11	48
16	42	3	11	57
23	43	3	11	57
51		9	35	42

P. DE LA LOIRE				51 to 58
5	53	3	11	48
7	51	3	11	48
29	54	3	11	57
41		9	35	33

AQUITAINE				61 to 68
4	67	3	11	48
8	66	3	11	48
21	63	3	11	57
33		9	35	33

AUVERGNE				71 to 78
58	75	3	11	57
62	74	3	14	27
73	72	3	11	57
193		9	38	21

F-COMTE				81 to 88
1	85	3	11	48
31	84	3	11	57
38	81	3	11	57
70		9	35	42

BOURGOGNE				91 to 98
9	93	3	11	48
13	96	3	11	57
15	92	3	11	57
37		9	35	42

CHAMPAGNE				101 to 108
10	105	3	11	48
11	102	3	11	48
18	107	3	11	57
39		9	35	33

LORRAINE				111 to 118
20	112	3	11	57
30	117	3	11	57
39	114	3	11	57
89		9	35	51

ALSACE				121 to 128
14	122	3	11	57
19	127	3	11	57
54	121	3	11	57
87		9	35	51

1st	AQU	9H 35' 33'' -	33 pts
2nd	CHA	9H 35' 33'' -	39 pts
3rd	PDL	9H 35' 33'' -	41 pts
4th	BOU	9H 35' 42'' -	37 pts
5th	NOR	9H 35' 42'' -	41 pts
6th	RHO	9H 35' 42'' -	51 pts
7th	IDF	9H 35' 42'' -	55 pts
8th	FRC	9H 35' 42'' -	70 pts
9th	BRE	9H 35' 42'' -	81 pts
10th	ALS	9H 35' 51''-	87 pts
11e	LOR	9H 35' 51''-	89 pts
12e	PIC	9H 35' 51'' -	95 pts
13e	AUV	9H 38' 21''-	193 pts

EVENT: **TOUR DE LORRAINE** **DATE:** **30 May 2003**

TIME TRIAL START ORDER
Riders start every **2** minutes except for
the last **15** starters when the gap will be **3** minutes
First start at **13** h **06** min. Last start at **15** h **55** min

Order No	Body No	Start time		
		H	M	S
1	47	13	06	00
2	63	13	08	00
3	22	13	10	00
4	25	13	12	00
5	14	13	14	00
6	74	13	16	00
7	67	13	18	00
8	85	13	20	00
9	5	13	22	00
10	124	13	24	00
11	98	13	26	00
12	35	13	28	00
13	44	13	30	00
14	16	13	32	00
15	56	13	34	00
16	8	13	36	00
17	65	13	38	00
18	52	13	40	00
19	95	13	42	00
20	114	13	44	00
21	112	13	46	00
22	76	13	48	00
23	23	13	50	00
24	3	13	52	00
25	45	13	54	00
26	77	13	56	00
27	92	13	58	00
28	105	14	00	00
29	103	14	02	00
30	12	14	04	00
31	83	14	06	00
32	42	14	08	00
33	26	14	10	00
34	81	14	12	00
35	97	14	14	00
36	116	14	16	00
37	61	14	18	00
38	54	14	20	00
39	48	14	22	00
40	33	14	24	00

Order No	Body No	Start time		
		H	M	S
41	47	14	26	00
42	63	14	28	00
43	22	14	30	00
44	25	14	32	00
45	14	14	34	00
46	74	14	36	00
47	67	14	38	00
48	85	14	40	00
49	5	14	42	00
50	124	14	44	00
51	98	14	46	00
52	35	14	48	00
53	44	14	50	00
54	16	14	52	00
55	56	14	54	00
56	8	14	56	00
57	65	14	58	00
58	52	15	00	00
59	95	15	02	00
60	114	15	04	00
61	112	15	06	00
62	76	15	08	00
63	23	15	10	00
64	3	15	13	00
65	45	15	16	00
66	77	15	19	00
67	92	15	22	00
68	105	15	25	00
69	103	15	28	00
70	12	15	31	00
71	83	15	34	00
72	42	15	37	00
73	26	15	40	00
74	81	15	43	00
75	97	15	46	00
76	116	15	49	00
77	61	15	52	00
78	54	15	55	00
79				
80				

Order No	Body No	Start time		
		H	M	S
81				
82				
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118				
119				
120				

Distance: **45.000 km**

Anticipated finish time of last competitor: **16** h **40** min

RECORD OF TIME TRIAL FINISHERS
TOUR DE LORRAINE
Deadline: 25% TIME RECORDINGS STAGE 3

	Body No	Names	H	M	S	C
1	47		13	53	16	89
2	63		13	55	01	17
3	22		13	58	14	25
4	14		13	58	16	39
5	25		13	58	18	27
6	74		14	00	27	33
7	67		14	02	36	67
8	85		14	05	12	01
9	5		14	07	01	06
10	124		14	08	13	47
11	98		14	10	27	35
12	35		14	12	43	16
13	44		14	14	19	99
14	56		14	14	32	27
15	8		14	18	16	13
16	16		14	18	21	33
17	65		14	21	59	59
18	52		14	23	12	34
19	95		14	25	01	07
20	114		14	27	13	13
21	112		14	28	59	56
22	76		14	29	57	44
23	23		14	31	48	25
24	3		14	33	48	19
25	45		14	35	29	87
26	92		14	39	58	92
27	105		14	41	27	54
28	103		14	44	10	03
29	12		14	46	29	69
30	83		14	49	58	12
31	42		14	50	47	98
32	26		14	52	58	87
33	81		14	55	01	43
34	97		14	58	26	12
35	116		15	00	00	07
36	61		15	02	01	23
37	54		15	04	16	99
38	48		15	06	19	99
39	33		15	08	33	14
40	101		15	10	06	07

	Body No	Names	H	M	S	C
41	122		15	12	24	16
42	127		15	14	58	15
43	24		15	15	07	13
44	6		15	18	25	25
45	32		15	20	01	09
46	46		15	21	54	54
47	64		15	23	27	26
48	51		15	24	33	47
49	71		15	27	18	04
50	87		15	29	54	16
51	102		15	31	18	25
52	96		15	34	19	99
53	111		15	34	22	16
54	121		15	35	49	49
55	7		15	39	00	33
56	53		15	40	40	40
57	31		15	42	06	24
58	43		15	44	22	16
59	75		15	46	13	12
60	72		15	48	27	15
61	93		15	48	36	27
62	84		15	51	06	27
63	1		15	54	21	30
64	107		15	56	33	12
65	37		15	59	21	68
66	57		16	02	01	07
67	2		16	06	03	18
68	17		16	09	54	34
69	62		16	09	59	27
70	11		16	14	21	30
71	4		16	17	03	11
72	27		16	17	21	54
73	36		16	22	20	34
74	66		16	25	56	33
75	94		16	27	03	01
76	117		16	39	20	43
77	13		16	32	18	16
78						
79						
80						

EVENT: TOUR DE LORRAINE
DATE: Stage 3 (time trial)
KILOMETRES: 27,350 km
AVERAGE: 43,994

RETIREMENTS					N.S.
77					

Classification	Body No	Time			
		H	M	S	100
1	13		37		
2	117		37		
3	27		37		
4	94		38		
5	1		38		
6	93		38		
7	62		38		
8	36		39		
9	66		39		
10	57		40		
11	4		40		
12	11		40		
13	37		40		
14	56		40		
15	2		41		
16	64		41		
17	105		41		
18	45		41		
19	3		41		
20	23		41		
21	121		41		
22	17		41		
23	76		41		
24	92		41		
25	31		42		
26	103		42		
27	75		42		
28	8		42		
29	111		42		
30	43		42		
31	72		42		
32	12		42		
33	53		42		
34	42		42		
35	26		42		
36	112		42		
37	7		43		
38	95		43		
39	81		43		
40	84		43		

Classification	Body No	Time			
		H	M	S	100
41	24		43	07	13
42	52		43	12	34
43	114		43	13	12
44	71		43	18	04
45	102		43	18	25
46	107		43	33	12
47	87		43	54	16
48	46		43	54	54
49	83		43	58	12
50	65		43	59	59
51	116		44	00	07
52	32		44	01	09
53	61		44	01	23
54	101		44	06	07
55	124		44	13	47
56	14		44	16	39
57	54		44	16	99
58	44		44	19	99
59	48		44	19	99
60	96		44	19	99
61	122		44	24	16
62	6		44	25	25
63	97		44	26	12
64	74		44	27	33
65	98		44	27	35
66	33		44	33	14
67	51		44	33	47
68	67		44	36	67
69	35		44	43	16
70	127		44	58	15
71	5		45	01	06
72	85		45	12	01
73	25		46	18	27
74	16		46	21	33
75	63		47	01	17
76	47		47	16	89
77	22		48	14	25
78					
79	Time expired:				
80	63				
81	47				
82	22				
83					

Classification	Body No	Time			
		H	M	S	100
84					
85					
86					
87					
88					
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95					
96					
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124					
125					

EVENT: TOUR DE LORRAINE
DATE: FINAL OVERALL CLASSIFICATION
KILOMETRES: 349.850 km
AVERAGE: 43.527

RETIREMENTS					N.S.
77					

Classification	Body No	Time				
		H	M	S	100	Pl.
1	117	8	2	15	43	39
2	36	8	4	15	34	63
3	56	8	5	27	27	70
4	121	8	6	37	49	83
5	13	8	6	39	16	58
6	27	8	6	42	54	95
7	75	8	7	8	12	91
8	7	8	7	41	33	44
9	1	8	7	42	30	59
10	93	8	7	48	27	57
11	52	8	8	7	34	99
12	54	8	8	19	99	87
13	62	8	8	20	27	67
14	14	8	9	5	39	91
15	37	8	9	33	68	34
16	85	8	9	36	1	76
17	105	8	10	37	54	64
18	45	8	10	50	87	105
19	3	8	11	7	19	70
20	23	8	11	9	25	97
21	25	8	11	13	27	144
22	92	8	11	18	92	88
23	43	8	11	43	16	88
24	111	8	11	43	16	128
25	72	8	11	48	15	124
26	94	8	11	59	1	124
27	11	8	12	1	30	119
28	26	8	12	19	87	115
29	112	8	12	20	56	94
30	84	8	12	27	27	100
31	102	8	12	30	25	77
32	114	8	12	34	13	128
33	64	8	13	7	26	134
34	87	8	13	15	16	139
35	61	8	13	22	23	118
36	124	8	13	31	47	129
37	48	8	13	31	99	135
38	96	8	13	40	99	103
39	44	8	13	40	99	164
40	66	8	13	43	33	93

Classification	Body No	Time				
		H	M	S	100	Pl.
41	31	8	13	46	24	154
42	6	8	13	46	25	113
43	97	8	13	47	12	167
44	67	8	13	48	67	112
45	65	8	13	51	59	134
46	33	8	13	54	14	152
47	35	8	14	4	16	144
48	57	8	14	19	7	98
49	95	8	14	52	7	126
50	2	8	15	21	18	143
51	16	8	15	42	33	169
52	17	8	15	50	34	146
53	51	8	16	4	47	147
54	4	8	16	16	11	128
55	74	8	16	18	33	149
56	103	8	16	28	3	109
57	32	8	18	11	9	185
58	83	8	18	16	12	173
59	122	8	18	20	16	154
60	53	8	18	44	40	124
61	98	8	18	45	35	190
62	101	8	18	49	7	174
63	42	8	19	0	98	137
64	12	8	19	6	69	173
65	81	8	19	14	43	166
66	244	8	19	20	13	142
67	127	8	19	41	15	170
68	107	8	19	46	12	155
69	46	8	20	7	54	164
70	71	8	20	9	4	175
71	8	8	21	26	13	172
72	5	8	21	38	6	209
73	76	8	23	23	44	175
74	116	8	27	43	7	209
75						
76						
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Classification	Body No	Time				
		H	M	S	100	Pl.
84						
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124						
125						

Daily team classification

Tour de Lorraine: stage 3/time trial

ILE DE FRANCE				1 to 8
5	1	38	21	30
11	4	40	3	11
15	2	41	3	18
31	1	59	27	

BRETAGNE				31 to 38
8	36	39	20	34
13	27	40	21	68
25	31	42	6	24
46	2	1	47	

AQUITAINE				61 to 68
7	62	38	59	27
9	66	39	56	33
16	64	41	27	26
32	2	0	22	

5 44

BOURGOGNE				91 to 98
4	94	38	3	41
6	93	38	36	27
24	92	41	58	92
34	1	58	37	

ALSACE				121 to 128
21	121	41	49	49
55	124	44	13	47
61	122	44	24	16
137	2	10	26	

PICARDIE				11 to 18
1	13	37	18	16
12	11	40	21	30
22	17	41	54	34
35	1	59	33	

RHONE-ALPES				41 to 48
18	45	41	29	87
30	43	42	22	16
34	42	42	47	98
82	2	6	38	

AUVERGNE				71 to 78
23	76	41	57	44
27	75	42	13	12
31	72	42	27	15
81	2	6	37	

CHAMPAGNE				101 to 108
17	105	41	27	54
26	103	42	10	3
45	102	43	18	25
88	2	6	55	

NORMANDIE				21 to 28
3	27	37	21	54
20	23	41	48	25
35	26	42	58	87
58	2	2	7	

P. DE LA LOIRE				51 to 58
10	57	40	1	7
14	56	40	32	27
33	53	42	40	40
57	2	3	13	

F-COMTE				81 to 88
39	81	43	1	43
40	84	43	6	27
47	87	43	54	16
126	2	10	1	

LORRAINE				111 to 118
2	117	37	20	43
29	111	42	22	16
36	112	42	59	56
67	2	2	41	

1st BOU 1H 58' 37'' - 34 pts
2nd IDF 1H 59' 27'' - 31 pts
3rd PIC 1H 59' 33'' - 35 pts
4th AQU 2H 00' 22'' - 32 pts
5th BRE 2H 01' 47'' - 46 pts
6th NOR 2H 02' 07'' - 58 pts
7th LOR 2H 02' 41'' - 67 pts
8th PDL 2H 03' 13'' - 57 pts
9th AUV 2H 06' 37'' - 81 pts
10th RHO 2H 06' 38'' - 82 pts
11th CHA 2H 06' 55'' - 88 pts
12th FRC 2H 10' 01'' - 126 pts
13th ALS 2H 10' 26'' - 137 pts

Team overall classification

Tour de Lorraine

ILE DE FRANCE				1 to 8
46		12	47	46
55		9	35	42
31		1	59	27
132		24	22	55

PICARDIE				11 to 18
72		12	47	46
95		9	35	51
35		1	59	33
202		24	23	10

NORMANDIE				21 to 28
41		12	43	20
41		9	35	42
58		2	2	7
140		24	21	9

BRETAGNE				31 to 38
45		12	47	46
81		9	35	42
46		2	1	47
172		24	25	15

RHONE-ALPES				41 to 48
131		12	52	12
51		9	35	42
82		2	6	38
264		24	34	32

P. DE LA LOIRE				51 to 58
21		12	38	12
41		9	35	33
57		2	3	13
119		24	16	58

AQUITAINE				61 to 68
53		12	43	20
33		9	35	33
32		2	0	22
118		24	19	15

AUVERGNE				71 to 78
49		12	47	46
193		9	38	21
81		2	6	37
323		24	32	44

F-COMTE				81 to 88
73		12	47	46
70		9	35	42
126		2	10	1
269		24	33	29

BOURGOGNE				91 to 98
96		12	52	12
37		9	35	42
34		1	58	37
167		24	26	31

CHAMPAGNE				101 to 108
76		12	52	12
39		9	35	33
88		2	6	55
203		24	34	40

LORRAINE				111 to 118
91		12	47	46
89		9	35	51
67		2	2	41
247		24	26	18

ALSACE				121 to 128
75		12	47	46
87		9	35	51
137		2	10	26
299		24	34	3

1st PDL 24H 16' 58'' - 119 pts
2nd AQU 24H 19' 15'' - 118 pts
3rd NOR 24H 21' 09'' - 140 pts
4th IDF 24H 22' 55'' - 132 pts
5th PIC 24H 23' 10'' - 202 pts
6th BRE 24H 25' 15'' - 172 pts
7th LOR 24H 26' 18'' - 247 pts
8th BOU 24H 26' 31'' - 167 pts
9th AUV 24H 32' 44'' - 323 pts
10th FRC 24H 33' 29'' - 269 pts
11th ALS 24H 34' 03'' - 299 pts
12th RHO 24H 34' 32'' - 264 pts
13th CHA 24H 34' 40'' - 203 pts

Record of distances and averages

Tour de Lorraine

STAGE N°	DISTANCE	WINNERS' TIME	STAGE AVERAGE	RACE AVERAGE	TIME OF 1st PLACED OVERALL	AVERAGE OF 1st PLACED OVERALL
1	183,600	4 h 12' 16''	43,668			
2	138,900	3 h 11' 48''	43,451			
T	322,500	7 h 24' 04''		43,574	7 h 24' 13''	43,559
3	27,350	37' 18'' 16	43,994			
T	349,850	8 h 01' 22''		43,607	8 h 02' 15''	43,527
4						
T						
5						
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6						
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7						

5.3 Timekeeper's documents

				Stage N°:		AVERAGE	RETIREMENTS
				Actual km:		ELIMINATION TIME:	
	Race time			Gaps		FINISH DEADLINE:	
	H	M	S	M	S	NON-STARTERS:	
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							
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16							
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19							
20							
21							
22							
23							
24							
25							
26							
27							
28							
29							
30							

				Stage N°:		AVERAGE :	RETIREMENTS
				Actual km:		ELIMINATION TIME:	
	Race time			Gaps		FINISH DEADLINE:	
	H	M	S	M	S	NON-STARTERS:	
31							
32							
33							
34							
35							
36							
37							
38							
39							
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41							
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57							
58							
59							
60							

EPREUVE: TOUR DE LORRAINE
DATE: Stage 3 (time trial)
KILOMETRES: 27,350 km
AVERAGE: 43,994

RETIREMENTS					N.S.
77					

Classification	Body No	Time			
		H	M	S	100
1					
2					
3					
4					
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32					
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34					
35					
36					
37					
38					
39					
40					

Classification	Body No	Time			
		H	M	S	100
41					
42					
43					
44					
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83					

Classification	Body No	Time			
		H	M	S	100
84					
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114					
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118					
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120					
121					
122					
123					
124					
125					

Classification

Daily classi-fication	Team				Overall classification
	Body No to				
	Stages	H	M	S	
	1				
	2				
	TOTAL				
	3				
	TOTAL				
	4				
	TOTAL				
	5				
	TOTAL				
	6				
	TOTAL				
	7				
	TOTAL				
	8				
	TOTAL				
	9				
	TOTAL				
	10				
	TOTAL				
	11				
	TOTAL				
	12				
	TOTAL				

Daily classi-fication	Team				Overall classification
	Body No to				
	Stages	H	M	S	
	1				
	2				
	TOTAL				
	3				
	TOTAL				
	4				
	TOTAL				
	5				
	TOTAL				
	6				
	TOTAL				
	7				
	TOTAL				
	8				
	TOTAL				
	9				
	TOTAL				
	10				
	TOTAL				
	11				
	TOTAL				
	12				
	TOTAL				

Daily classi-fication	Team				Overall classification
	Body No to				
	Stages	H	M	S	
	1				
	2				
	TOTAL				
	3				
	TOTAL				
	4				
	TOTAL				
	5				
	TOTAL				
	6				
	TOTAL				
	7				
	TOTAL				
	8				
	TOTAL				
	9				
	TOTAL				
	10				
	TOTAL				
	11				
	TOTAL				
	12				
	TOTAL				

Team daily classification

				to

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Stage	H	M	S	1/100	Bo	Pe	Cei	OBSERVATIONS
1								
2								
TOTAL								
3								
TOTAL								
4								
TOTAL								
5								
TOTAL								

Stage	H	M	S	1/100	Bo	Pe	Cei	OBSERVATIONS
1								
2								
TOTAL								
3								
TOTAL								
4								
TOTAL								
5								
TOTAL								

Stage	H	M	S	1/100	Bo	Pe	Cei	OBSERVATIONS
1								
2								
TOTAL								
3								
TOTAL								
4								
TOTAL								
5								
TOTAL								

Stage	H	M	S	1/100	Bo	Pe	Cei	OBSERVATIONS
1								
2								
TOTAL								
3								
TOTAL								
4								
TOTAL								
5								
TOTAL								

Stage	H	M	S	1/100	Bo	Pe	Cei	OBSERVATIONS
1								
2								
TOTAL								
3								
TOTAL								
4								
TOTAL								
5								
TOTAL								
6								
TOTAL								
7								
TOTAL								
8								
TOTAL								
9								
TOTAL								
10								
TOTAL								
11								
TOTAL								
12								
TOTAL								

Stage	H	M	S	1/100	Bo	Pe	Cei	OBSERVATIONS
1								
2								
TOTAL								
3								
TOTAL								
4								
TOTAL								
5								
TOTAL								
6								
TOTAL								
7								
TOTAL								
8								
TOTAL								
9								
TOTAL								
10								
TOTAL								
11								
TOTAL								
12								
TOTAL								

	H	M	S	1/100
Finish:				
Start:				
Race time:				
Time trial:	Average:			

	H	M	S	1/100
Finish:				
Start:				
Race time:				
Time trial:	Average:			

	H	M	S	1/100
Finish:				
Start:				
Race time:				
Time trial:	Average:			

	H	M	S	1/100
Finish:				
Start:				
Race time:				
Time trial:	Average:			

PROLOGUE				
	H	**M**	**S**	**1/100**
Finish:				
Start:				
Race time:				
Time trial:	Average:			
TIME TRIAL STAGE				
	H	**M**	**S**	**1/100**
Finish:				
Start:				
Race time:				
Time trial:	Average:			

PROLOGUE				
	H	**M**	**S**	**1/100**
Finish:				
Start:				
Race time:				
Time trial:	Average:			
TIME TRIAL STAGE				
	H	**M**	**S**	**1/100**
Finish:				
Start:				
Race time:				
Time trial:	Average:			

PROLOGUE				
	H	**M**	**S**	**1/100**
Finish:				
Start:				
Race time:				
Time trial:	Average:			
TIME TRIAL STAGE				
	H	**M**	**S**	**1/100**
Finish:				
Start:				
Race time:				
Time trial:	Average:			

PROLOGUE				
	H	**M**	**S**	**1/100**
Finish:				
Start:				
Race time:				
Time trial:	Average:			
TIME TRIAL STAGE				
	H	**M**	**S**	**1/100**
Finish:				
Start:				
Race time:				
Time trial:	Average:			

EVENT: **DATE:**

TIME TRIAL START ORDER

Start every minute(s)

except for last starters when the gap will be minute(s)

First start at h min Last start at h min

Order No	Body No	Start time		
		H	M	S
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
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27				
28				
29				
30				
31				
32				
33				
34				
35				
36				
37				
38				
39				
40				

Order No	Body No	Start time		
		H	M	S
41				
42				
43				
44				
45				
46				
47				
48				
49				
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51				
52				
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71				
72				
73				
74				
75				
76				
77				
78				
79				
80				

Order No	Body No	Start time		
		H	M	S
81				
82				
83				
84				
85				
86				
87				
88				
89				
90				
91				
92				
93				
94				
95				
96				
97				
98				
99				
100				
101				
102				
103				
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107				
108				
109				
110				
111				
112				
113				
114				
115				
116				
117				
118				
119				
120				

Distance:

Anticipated finish of last competitor: h min

TEAM TIME TRIAL

TEAM:

BODY NUMBERS:

DISTANCE:

Body No		H	M	S	1/100
	Finish:				
	Start:				
	Race time:				
	Average:				
		H	M	S	1/100
	Finish:				
	Start:				
	Race time:				
	Average:				

TEAM TIME TRIAL

TEAM:

BODY NUMBERS:

DISTANCE:

Body No		H	M	S	1/100
	Finish:				
	Start:				
	Race time:				
	Average:				
		H	M	S	1/100
	Finish:				
	Start:				
	Race time:				
	Average:				

Finish records - time trial

Deadline: **Time recordings**

	Body No	NAMES	H	M	S	C.
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						
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29						
30						
31						
32						
33						
34						
35						
36						
37						
38						
39						
40						

	Body No	NAMES	H	M	S	C.
41						
42						
43						
44						
45						
46						
47						
48						
49						
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51						
52						
53						
54						
55						
56						
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72						
73						
74						
75						
76						
77						
78						
79						
80						

Record of distances and averages

STAGE N°	DISTANCE	WINNERS' TIMES	STAGE AVERAGE	RACE AVERAGE	TIME OF 1st PLACED OVERALL	AVERAGE OF 1st PLACED OVERALL
1						
2						
T						
3						
T						
4						
T						
5						
T						
6						
T						
7						
T						
8						
T						

Monitoring the race

Actual start time:

	TOTAL DISTANCE COVERED	DISTANCE COVERED IN ONE HOUR	OVERALL AVERAGE
Hour 1:			
Hour 2:			
Hour 3:			
Hour 4:			
Hour 5:			
Hour 6:			

Sprint bonus No 1:			
Sprint bonus No 2:			
Sprint bonus No 3:			

Retirements:			

Record of cyclo-cross passages

Event:

1st lap			
PL.	BOY N°	TIME	GAPS
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			

2nd lap			
PL.	BOY N°	TIME	GAPS
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			

3rd lap			
PL.	BOY N°	TIME	GAPS
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			

4th lap			
PL.	BOY N°	TIME	GAPS
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			

5th lap			
PL.	BOY N°	TIME	GAPS
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			

6th lap			
PL.	BOY N°	TIME	GAPS
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			

7th lap			
PL.	BOY N°	TIME	GAPS
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			

8th lap			
PL.	BOY N°	TIME	GAPS
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			

9th lap			
PL.	BOY N°	TIME	GAPS
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			

10th lap			
PL.	BOY N°	TIME	GAPS
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			

11th lap			
PL.	BOY N°	TIME	GAPS
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			

12th lap			
PL.	BOY N°	TIME	GAPS
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			

13th lap			
PL.	BOY N°	TIME	GAPS
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			

14th lap			
PL.	BOY N°	TIME	GAPS
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			

15th lap			
PL.	BOY N°	TIME	GAPS
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			

Table giving the number of laps to be completed based on the times in laps completed

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
0:03:30	0:07:00	0:10:30	0:14:00	0:17:30	0:21:00	0:24:30	0:28:00	0:31:30	0:35:00	0:38:30	0:42:00	0:45:30	0:49:00	0:52:30	0:56:00	0:59:30
0:03:45	0:07:30	0:11:15	0:15:00	0:18:45	0:22:30	0:26:15	0:30:00	0:33:45	0:37:30	0:41:15	0:45:00	0:48:45	0:52:30	0:56:15	1:00:00	
0:04:00	0:08:00	0:12:00	0:16:00	0:20:00	0:24:00	0:28:00	0:32:00	0:36:00	0:40:00	0:44:00	0:48:00	0:52:00	0:56:00	1:00:00		
0:04:15	0:08:30	0:12:45	0:17:00	0:21:15	0:25:30	0:29:45	0:34:00	0:38:15	0:42:30	0:46:45	0:51:00	0:55:15	0:59:30			
0:04:30	0:09:00	0:13:30	0:18:00	0:22:30	0:27:00	0:31:30	0:36:00	0:40:30	0:45:00	0:49:30	0:54:00	0:58:30				
0:04:45	0:09:30	0:14:15	0:19:00	0:23:45	0:28:30	0:33:15	0:38:00	0:42:45	0:47:30	0:52:15	0:57:00	1:01:45				
0:05:00	0:10:00	0:15:00	0:20:00	0:25:00	0:30:00	0:35:00	0:40:00	0:45:00	0:50:00	0:55:00	1:00:00					
0:05:15	0:10:30	0:15:45	0:21:00	0:26:15	0:31:30	0:36:45	0:42:00	0:47:15	0:52:30	0:57:45	1:03:00					
0:05:30	0:11:00	0:16:30	0:22:00	0:27:30	0:33:00	0:38:30	0:44:00	0:49:30	0:55:00	1:00:30						
0:05:45	0:11:30	0:17:15	0:23:00	0:28:45	0:34:30	0:40:15	0:46:00	0:51:45	0:57:30	1:03:15						
0:06:00	0:12:00	0:18:00	0:24:00	0:30:00	0:36:00	0:42:00	0:48:00	0:54:00	1:00:00							
0:06:15	0:12:30	0:18:45	0:25:00	0:31:15	0:37:30	0:43:45	0:50:00	0:56:15	1:02:30							
0:06:30	0:13:00	0:19:30	0:26:00	0:32:30	0:39:00	0:45:30	0:52:00	0:58:30								
0:06:45	0:13:30	0:20:15	0:27:00	0:33:45	0:40:30	0:47:15	0:54:00	1:00:45								
0:07:00	0:14:00	0:21:00	0:28:00	0:35:00	0:42:00	0:49:00	0:56:00	1:03:00								
0:07:15	0:14:30	0:21:45	0:29:00	0:36:15	0:43:30	0:50:45	0:58:00									
0:07:30	0:15:00	0:22:30	0:30:00	0:37:30	0:45:00	0:52:30	1:00:00									
0:07:45	0:15:30	0:23:15	0:31:00	0:38:45	0:46:30	0:54:15	1:02:00									
0:08:00	0:16:00	0:24:00	0:32:00	0:40:00	0:48:00	0:56:00	1:04:00									
0:08:15	0:16:30	0:24:45	0:33:00	0:41:15	0:49:30	0:57:45										
0:08:30	0:17:00	0:25:30	0:34:00	0:42:30	0:51:00	0:59:30										
0:08:45	0:17:30	0:26:15	0:35:00	0:43:45	0:52:30	1:01:15										
0:09:00	0:18:00	0:27:00	0:36:00	0:45:00	0:54:00	1:03:00										
0:09:15	0:18:30	0:27:45	0:37:00	0:46:15	0:55:30	1:04:45										
0:09:30	0:19:00	0:28:30	0:38:00	0:47:30	0:57:00											
0:09:45	0:19:30	0:29:15	0:39:00	0:48:45	0:58:30											
0:10:00	0:20:00	0:30:00	0:40:00	0:50:00	1:00:00											
0:10:15	0:20:30	0:30:45	0:41:00	0:51:15	1:01:30											
0:10:30	0:21:00	0:31:30	0:42:00	0:52:30	1:03:00											
0:10:45	0:21:30	0:32:15	0:43:00	0:53:45	1:04:30											
0:11:00	0:22:00	0:33:00	0:44:00	0:55:00	1:06:00											

TRACK
TIME RECORDINGS: 200 m/500 m/1 km

	Body No	NAMES	H	M	S	C
1						
2						
3						
4						
5						
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10						
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35						
36						
37						
38						
39						
40						

	Body No	NAMES	H	M	S	C
41						
42						
43						
44						
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52						
53						
54						
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71						
72						
73						
74						
75						
76						
77						
78						
79						
80						

Sprint time record
Track distance:

Track 1/2 lap	KM	TIME			1/2-lap time Rider A
		M	S	100 1000	
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					
31					
32					

Track 1/2 lap	KM	TIME			1/2-lap time Rider B
		M	S	100 1000	
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
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27					
28					
29					
30					
31					
32					

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