CSSE Mock Paper 2 Maths

First Name: .....

Last Name: .....

Primary School: .....

Date of Birth: .....

Today's Date: .....

DO NOT OPEN THIS PAPER UNTIL INSTRUCTED TO DO SO.

11 Plus Essex CSSE – Maths

Read the instructions carefully.

1. Do not open this booklet until you are told to do so.
2. You may work the questions out in your head, or by working out on the white area around the question.
3. Work as quickly and carefully as you can.
4. Make any alterations to your answers **clearly**. You will not lose marks for crossing out.
5. You will have **60 minutes** to do this test. If you find you cannot do a question, do not waste time on it, but go on to the next one.
6. Once the test has begun, you should not ask about questions in the test.
7. The use of electronic calculators of any description is **NOT** permitted.

NOT TO BE FILLED IN BY PUPIL		
PAGE	SCORE	
	R	W
1 (6)		
2 (5)		
3 (9)		
4 (4)		
5 (4)		
6 (4)		
7 (6)		
8 (7)		
9 (5)		
10 (7)		
11 (3)		
TOTAL (60)		
INITIALS OF MARKER(S)		

Question (and working space)	ANSWER
In the questions below, fill in the box to make the calculations correct.	
1. **(a)** $64 \div \square = 0.4 \times 20$	Fill in the box
(b) $57 + \square = 43 + 26 + 19$	Fill in the box
(c) $9 \times \square \times 2 = 180 - 36$	Fill in the box
(d) $\square - 75 = 132 \div 3$	Fill in the box
(e) $(420 \div 4) \times 3 = (160 \times \square) - 5$	Fill in the box
2. A room is 4cm long on a plan. The scale is 1cm to 2m. What is the real length of the room?	

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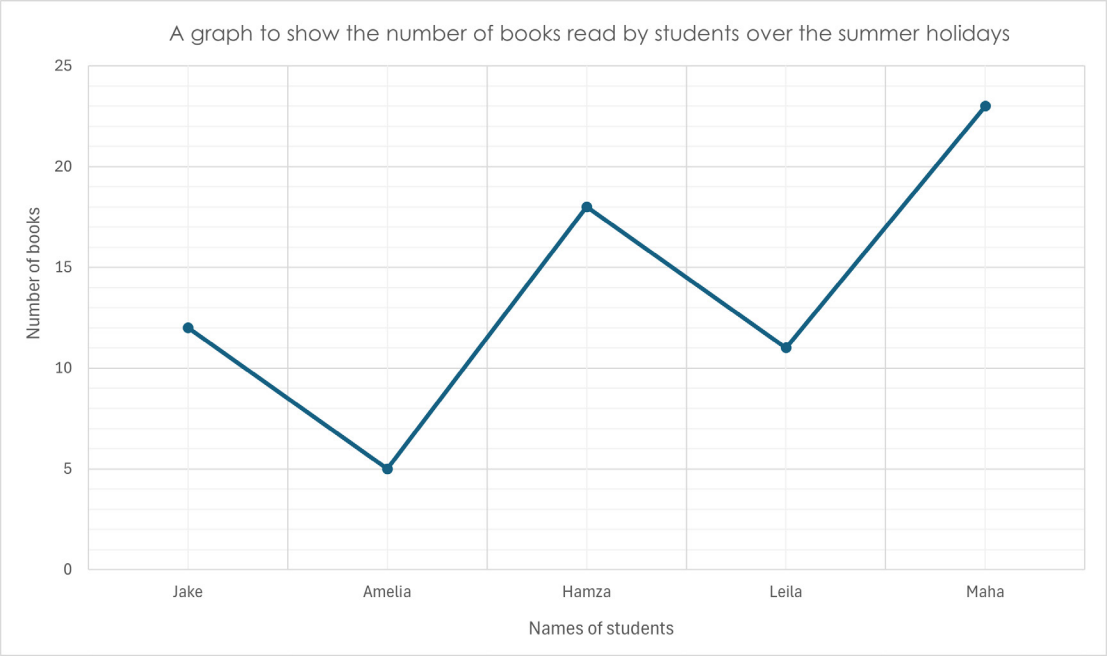
(6)

Question (and working space)	ANSWER
3. A spinner has 10 equal sections numbered 1 –10. What is the probability of landing on a number less than 5? Give your answer as a fraction.	
4. A dice is rolled 90 times. How many times would you expect a 6?	
5. A rectangle has sides of 12cm and 9cm. What is the area of the rectangle?	..... cm^2
6. A triangle has a base of 10cm and height of 7cm. What is the area of the triangle?	..... cm^2
7. Use the graph below to answer the following questions. 	
(a) How many books were read by the two students who read the most?	

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(5)

Question (and working space)		ANSWER
(b)	How many more books did Hamza read than Amelia?	
(c)	Which student read the fewest books?	
(d)	How many books were read in total?	
(e)	There are 6 weeks in the summer holidays. Which student read three times the number books, as weeks in the holidays?	
8.	What is the value of x in the following equations?	
(a)	$(x - 3) \times 3^2 = 54$	
(b)	$300 - x = (4^2)^2$	
(c)	$x \div 15 = 540 \div 60$	
9.	Temperatures in a city fell from 3°C to –6°c overnight. What was the change in temperature?	.....°C
10.	In a number sequence, each term increases by 4. The second term is 5. What is the 8th term?	

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(9)

Question (and working space)		ANSWER
11.	In a poll of 500 children, 425 said they liked chocolate. What percentage did NOT like chocolate?	
12.	Jake eats ⅖ of a pizza. Ellie eats ⅓. What fraction of the pizza is eaten in total? Give your answer in its simplest form.	
13.	Giorgio has ⅖ of a litre of juice. He shares the juice equally between four glasses. How much juice is in each glass?	.....ml
14.	Three toy cars and two toy trains are arranged in the following way on a playmat.  CTCTC is one way they can be ordered. CCTCT is another way they can be ordered, and so on. How many different ways, including those already mentioned above, can the toys be ordered if the toy trains must never be next to each other?	

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(4)

Question (and working space)	ANSWER
15. A box of 25 packets of crisps costs £6.75 and weighs 750g.	
(a) What is the cost of 9 packets of crisps?	£.....
(b) If the empty box weighs 25g, how much do 5 packets of crisps weigh?	.....g
16. In a number square, each row, column and diagonal must add up to the same total. Identify the number that should be in place of the question mark.	
(a)	
(b)	

?		7
13	9	5
	1	

	1	11
5	9	
7		?

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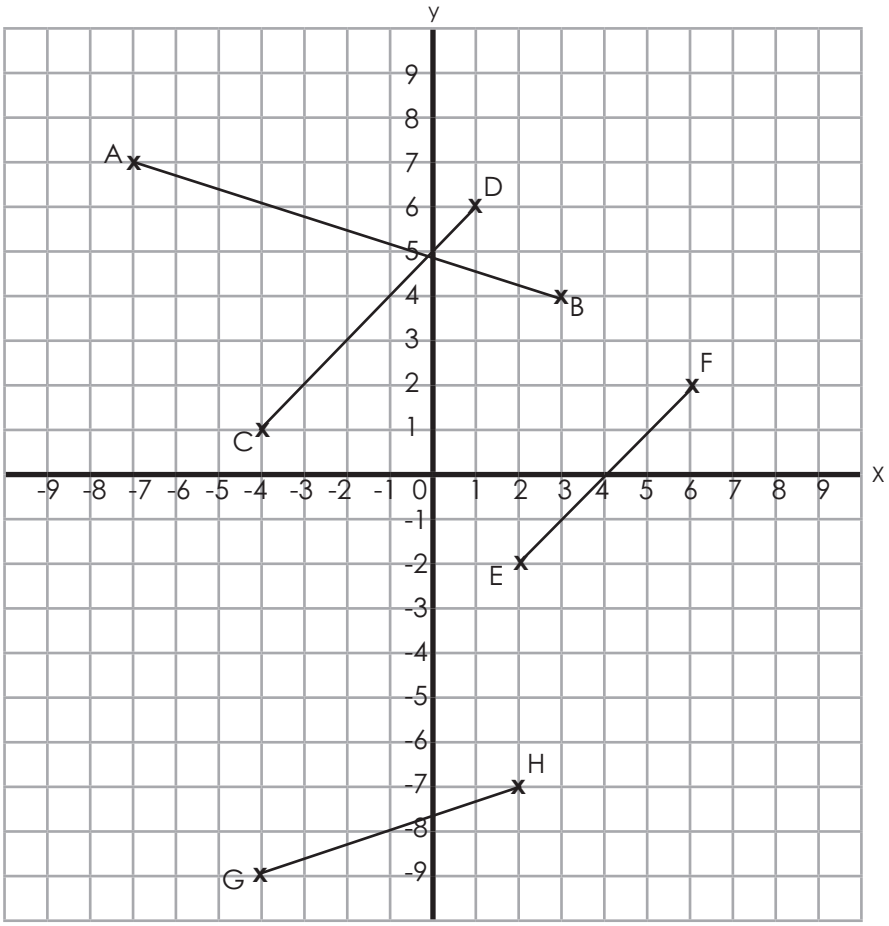
(4)

Question (and working space)	ANSWER	Please do not write in this space

17. On the grid below there are four lines with crosses marking the end points.



(a) What are the coordinates of point C?

(,)

(b) What are the coordinates of the midpoint of the line EF?

(,)

(c) Which line is parallel to EF?

(d) Mark an X at coordinates (6,-2) and label this point I. Join the lines from E to F, F to I and I back to E to create a triangle. What is the area of this triangle in square units?

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(4)

Question (and working space)	ANSWER
18. Let A = 2 B = 3 C = 4 D = 5	
(a) $A^2 + B^2 + C^2 =$	
(b) $(D \times B^3) \div (A + B)$	
(c) $(D^3 \times C) - (A \times B \times C)$	

19. A bus runs between five stops on Route 57. The timetable below shows the departure times from each stop in the morning.

Stop	Station Road	High Street	Central Park	Library	Green Lane
Bus 1	07:15	07:25	07:37	07:45	07:52
Bus 2	07:45	07:55	08:07	08:15	08:22
Bus 3	08:15	08:25	08:37	08:45	08:52
Bus 4	08:45	08:55	09:07	09:15	09:22

(a)	How long does it take Bus 2 to travel from the High Street to the Library?	
(b)	James catches Bus 3 at Station Road. It is delayed at Central Park for 9 minutes. What time will the bus arrive at Green Lane?	
(c)	Emma needs to be at Green Lane by 9:00am. Which bus should she catch from Central Park to arrive on time?	

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(6)

Question (and working space)	ANSWER
20. What is the highest common factor of 16 and 28?	
21. What is the missing prime factor of 154? $2 \times 7 \times ?$	
22. What is the next multiple of 6 in this list: 6, 12, 18, 24, 30, ?	
23. What is the lowest common multiple of 4 and 6?	
24. What is the next multiple of 13 in this list: 13, 26, 39, 52, ?	
25. A bakery sells the following items.	

A box of 6 cupcakes	Cookies	Tray of 4 brownies	Bag of 10 mini doughnuts
£2.40	35p each	£3.20	£1.80

(a)	What is the cost of 4 cookies, 12 cupcakes and 4 brownies?	£.....
(b)	Which item is best value for money per unit?	

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(7)

Question (and working space)	ANSWER	Please do not write in this space

26. A sequence of frogs in a pond during a day, looks like this:

10:00	10:10	10:20	10:30
1 frog	2 frogs	3 frogs	4 frogs

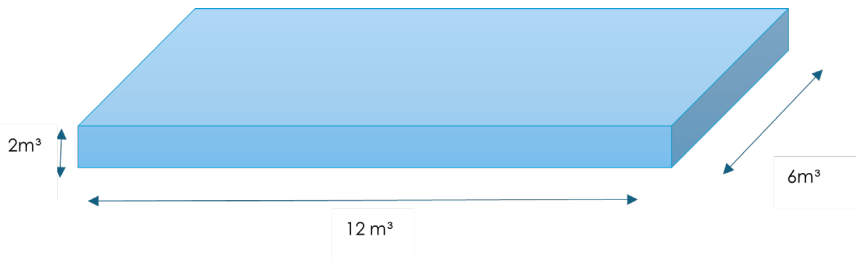
(a) At what time will there be 9 frogs in the pond?

(b) How many frogs will be in the pond at 12:50?

(c) What time will there be double the number of frogs that there at 11:00?

27. What is ⅓ of 2 ½?

28. A pool is in the shape of a rectangular prism with a length of 12 metres, a width of 6 metres, and a depth of 2 metres. What is the capacity of the pool in cubic metres?



.....m³

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(5)

Question (and working space)	ANSWER
29. Complete the input machines.	
(a) Input → [× 5] → [+ 42] → 102	Input = ...
(b) Input → [÷ 3] → [− 47] → 74	Input = ...
(c) Input → [cubed] → [× 4] → 500	Input = ...
(d) Input → [+ 45] → [÷ 9] → 9	Input = ...
30. Sophie wants to buy 3 books. The first book costs two pounds less that the second book, and the third book costs a pound more that the first book. The second book costs £8. How much does the third book cost?	£.....
31. A train travels at a speed of 60 km/h. How far will it travel in 3.5 hours?	.....km
32. A piece of ribbon is 5 metres long. If it is cut into pieces that are each 25 cm long, how many pieces can be made?	

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(7)

Question (and working space)		ANSWER
33.	I think of a number. I double my number and then add 25. The final result is 93. What was the number I started with?	
34.	⅝ of a number N is 75. What is ¼ of N?	
35.	Alice has 3 times as many apples as Bob. Together, they have 48 apples. How many apples does Bob have?	

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(3)

END OF TEST (You should have completed 35 questions.)

Working Out Space

Working Out Space

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LEARNING