

**FSCE STYLE**  
**Entrance Test**  
**for Entry into Year 7**

**MOCK 1 PAPER 3**

YEAR 7 MOCK ENTRANCE TEST FOR SCHOOLS

Name:

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Primary School:

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Test Date:

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**40 minutes**

Each section is timed separately.

Read the instructions at the start of each section.

**You must NOT open this booklet until you are told to do so.**

## Section 1: Multiple Choice

### Instructions

Read each question carefully.

You can use the space after each question for working out, but you will not get any marks for your working out.

Answer by shading one of the ovals **A–D** on your answer sheet.

There is only **one** correct answer.

Shade only **one** oval for each question.

### Example

i

What is the value of 3 in 8,739?

- A 3
- B 30
- C 300
- D 3,000

The correct answer is **B**.

You have **20 minutes** for this section.

There are **25 questions** to answer.

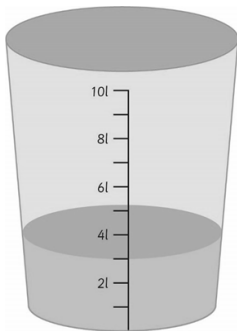
## Section 1: Multiple Choice

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1. A right-angled triangle has one angle that is  $60^\circ$ . What are the other two angles?

- A All angles are  $60^\circ$
- B  $90^\circ$  and  $30^\circ$
- C This cannot make a valid triangle.
- D  $60^\circ$  and  $90^\circ$

2. Tariq adds 2500ml of water into this bucket. How many litres of water are in the bucket now?



- A 3,000ml
- B 4.5l
- C 5.5l
- D 7l

3. Calculate the value of:

$$2\frac{1}{2} - 1\frac{3}{8} =$$

- A  $1\frac{3}{4}$
- B  $1\frac{1}{4}$
- C 1
- D  $3\frac{3}{4}$

## Section 1: Multiple Choice

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4. Which is the largest number?

**0.27**    $\frac{1}{2}$     $\frac{1}{5}$    **0.52**

A 0.27

B  $\frac{1}{2}$

C  $\frac{1}{5}$

D 0.52

---

5. Which number is closest to 0.19?

**0.27**    $\frac{1}{2}$     $\frac{1}{5}$    **0.52**

A 0.27

B  $\frac{1}{2}$

C  $\frac{1}{5}$

D 0.52

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6. The total flying time from Abuja to New York via London is 15 hours. The section from Abuja to London takes 40% of the time. The flight takes off from Abuja at 10.20am.

Abuja is 1 hour ahead of London. What time does the flight land in London?

A 3:20pm

B 1:20am

C 6:20am

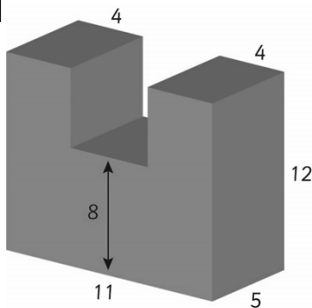
D 4:20pm

## Section 1: Multiple Choice

7. There is a stopover in London of 3 hours. New York is 5 hours behind London. What time does the flight land in New York?

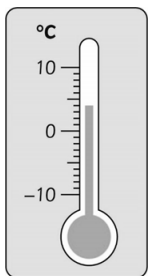
- A 10:20pm
- B 3:20am
- C 4:20am
- D 1:20am

8. What is the volume of this shape? (All measurements are in cm.)



- A  $568\text{cm}^3$
- B  $800\text{cm}^3$
- C  $600\text{cm}^3$
- D  $660\text{cm}^3$

9. Amy took the temperature at 10am as seen on this thermometer. 13 hours later the temperature had reduced by 7 degrees. What was the temperature then?



- A  $7^\circ$
- B  $-5^\circ$
- C  $-1^\circ$
- D  $-3^\circ$

## Section 1: Multiple Choice

10. This is a train timetable for the Edinburgh to Kings Cross train.

Explore Travel – Train Timetable			
Edinburgh	05:58	08:25	09:45
Newcastle	07:42	10:10	11:30
Doncaster	09:16	11:42	13:13
Kings Cross	10:53	13:20	14:14

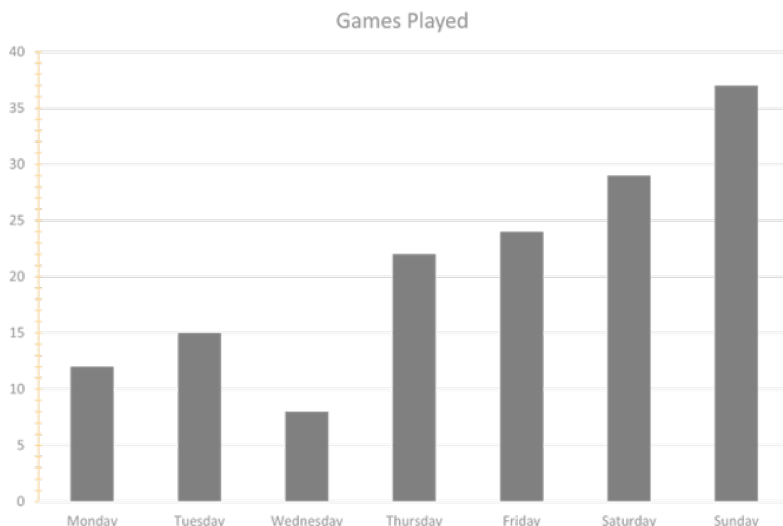
If the 05:58 left 17 minutes late, what time would passengers arrive at Doncaster?

- A 09:00
- B 07:52
- C 09:33
- D 10:33

11. A replacement bus is needed for the 08:25 from Edinburgh between Newcastle and Doncaster. The bus takes 2 hours and 10 minutes. How late will the passengers arrive in Doncaster?

- A 0 minutes
- B 2 hours and 10 minutes
- C 12 minutes
- D 38 minutes

The graph below shows the number of basketball games played at a leisure centre over a week. Use the graph to answer questions 12 – 14.



## Section 1: Multiple Choice

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12. What was the total number of games at the weekend?

- A 66
  - B 56
  - C 90
  - D 147
- 

13. What is the range between the numbers of games played across the week?

- A 34
  - B 20
  - C 147
  - D 29
- 

14. What was the mean number of games played per day?

- A 21
  - B 20
  - C 22
  - D 23
- 

15. Calculate  $17.3 + 12.9 =$

- A 30.1
- B 29.9
- C 30.2
- D 31.2

## Section 1: Multiple Choice

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16. Calculate  $7.2 \times 11.4 =$

- A 82.08
  - B 82.0
  - C 87.2
  - D 82.8
- 

17. Find 15% of 150.

- A 12.5
  - B 22.5
  - C 1.5
  - D 19.5
- 

18.

Joao runs a restaurant. The first customer buys a biscuit, a banana and a bottle of water for £4. The second customer buys 2 bottles of water, a banana and a biscuit for £6. The third customer buys 2 biscuits, a banana and a bottle of water for £5.50.

How much does a biscuit cost?

- A £1.50
- B £1.00
- C £2.50
- D £0.50

## Section 1: Multiple Choice

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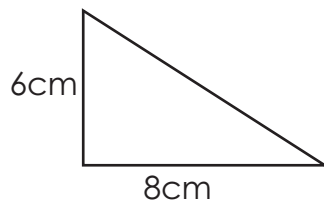
19. How much does a banana cost?

- A £1.50
  - B £1.00
  - C £2.50
  - D £0.50
- 

20. How much does a bottle of water cost?

- A £1.50
  - B £0.50
  - C £1.00
  - D £2.00
- 

21. Calculate the area of this triangle.



- A  $46\text{cm}^2$
- B  $32\text{cm}^2$
- C  $24\text{cm}^2$
- D  $16\text{cm}^2$

## Section 1: Multiple Choice

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22. What is the value of  $p$  in  $3p^2 = 108$ ?

- A 4
- B 9
- C 3
- D 6

23. Miss Miller's class recorded the number of each type of bird they saw from the classroom window.

Pigeon	Wren	Sparrow	Blackbird
32	3	8	7

What percentage of the birds were pigeons?

- A 12%
- B 64%
- C 56%
- D 32%

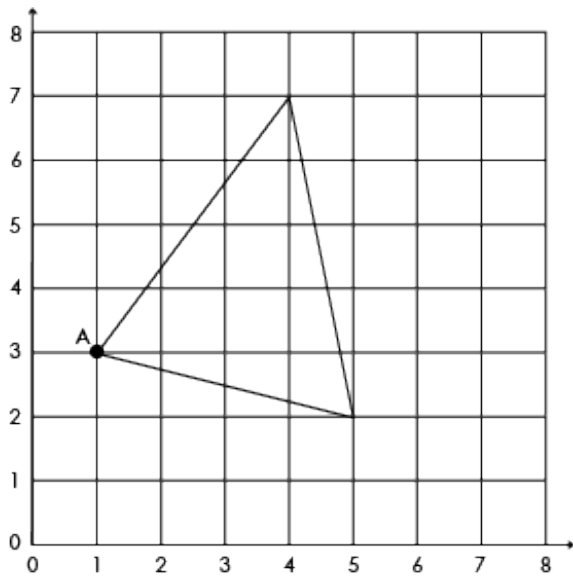
24. What is the value of  $j$  in this equation:  $\frac{j + 8.5}{60} = 20\%$

- A 1.5
- B 68.5
- C 42.5
- D 3.5

## Section 1: Multiple Choice

25.

The triangle on the grid below has been translated 2 squares left and 3 squares down. What were the original coordinates of point A?



- A (0,-1)
- B (0,3)
- C (3,6)
- D (6,3)

## Section 2: Free Response

### Instructions

Read each question carefully.

You can use the space after each question for working out, but you will not get any marks for your working out.

Write your answers on your answer sheet by writing **one** number in each box.

### Example

i

A rectangle has a length of 5cm and a width of 3cm. What is the perimeter?

The correct answer is **16cm**.

You have **20 minutes** for this section.

There are **20 questions** to answer.

## Section 2: Free Response

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1. Round 22,745 to the nearest 100.

2. What is the square root of 289?

3. A right-angled triangle has one angle that is  $45^\circ$ . What are the other two angles?

4. What is the lowest common multiple of 4 and 6?

5. Calculate the value of:

$$3\frac{1}{4} - 1\frac{2}{3} =$$

6. What is the highest common factor of 18 and 36?

7. A planet rotates around a star in orbit once every 10 hours. How many orbits does the planet complete in two weeks?

## Section 2: Free Response

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8. If 5 pencils cost £2.50, how much do 8 pencils cost?

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9. What is the volume of a cube with a side length of 3m?

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10. Axel buys 3 notebooks at £1.20 each and 2 pens at £0.80 each. How much change will he get from £10?

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11. A bag contains 3 red, 5 blue, and 4 green marbles. What is the probability of drawing a red marble? Give your answer as a fraction in its simplest form.

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12. A train travels 180km in 2 hours. How long will it take the train to travel 1,260km?

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13. If  $a = 5$ ,  $b = 3$  and  $c = 7$ , what is the value of  $(8a + 3b) \div c$  ?

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14. What is the area of a triangle with a base of 10cm and a height of 6cm?

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## Section 2: Free Response

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15. The mean of five numbers is 7. The mode of the five numbers is 5. If the median is 6, what is the sum of the two smallest numbers?

16. A mobile phone contract costs £13.50 each month, plus an additional monthly charge of £3 for extra data. What is the total cost over the year?

17. What is the product of all the factors of 8?

18. What is 14,551g, rounded to the nearest kg?

19. What is the difference between the number of vertices on a cuboid and the vertices on a triangular prism?

20. I think of a number. 6% of my number is 18. What number am I thinking of?

**END OF PAPER 3**