

Maths Mock Test Paper 22

Name: _____

Date: _____

Time allowed: **50 minutes**

50 questions, 1 mark each

Answer **every** question. Each question has five options, **A** to **E**, and exactly one is correct. Work out the answer and mark the letter you have chosen. Marks are not taken away for a wrong answer, so it is worth having a go at every question. **Calculators and rulers are not allowed.**

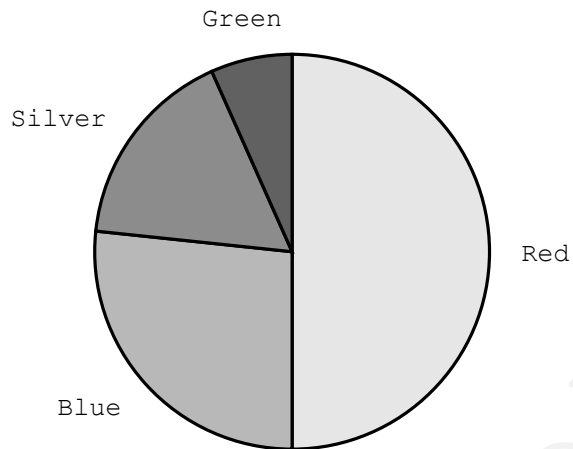
Q1. 60 stickers are shared equally between 5 children. How many stickers does each child get?

- A. 6 B. 10 C. 12 D. 15 E. 20

Q2. What is 7 squared?

- A. 14 B. 21 C. 47 D. 49 E. 77

Q3. The pie chart shows the colours of 30 cars in a car park. Which of these statements is true?



- A. There were more blue cars than red cars
- B. Green was the most common colour
- C. Blue and silver together made up half the cars
- D. All four colours had the same number of cars
- E. Exactly half the cars were red

Q4. A square has a perimeter of 20 cm. How long is each side?

- A. 4 cm
- B. 5 cm
- C. 6 cm
- D. 10 cm
- E. 80 cm

Q5. If $b = 4$, what is the value of $b + b + b$?

- A. 7
- B. 8
- C. 12
- D. 16
- E. 64

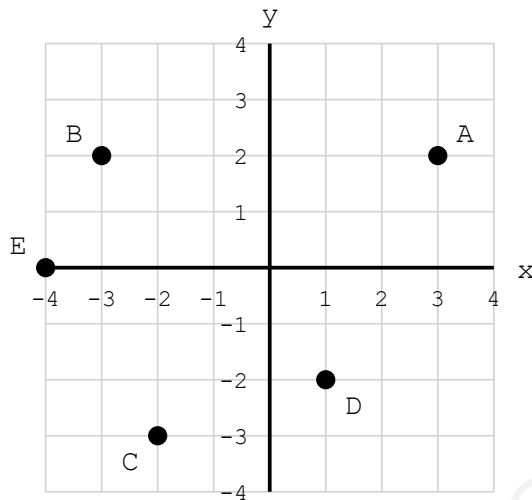
Q6. Which of these fractions would sit nearest to 0 on a number line?

- A. $\frac{1}{3}$
- B. $\frac{1}{5}$
- C. $\frac{1}{8}$
- D. $\frac{2}{5}$
- E. $\frac{3}{8}$

Q7. What is $48 \div 6$?

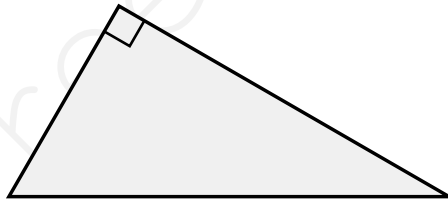
- A. 6
- B. 7
- C. 8
- D. 9
- E. 12

Q8. Which point has the coordinates $(-3, 2)$?



- A. A B. B C. C D. D E. E

Q9. Which of these words describes the triangle in the diagram?



- A. Equilateral
B. Isosceles
C. Right-angled
D. Obtuse-angled
E. Acute-angled

Q10. A necklace has 2 red beads for every 5 white beads. It has 14 red beads. How many white beads does it have?

- A. 17 B. 21 C. 28 D. 35 E. 70

Q11. I think of a number, multiply it by 6 and then divide by 4. The answer is 18. What was my number?

- A. 3 B. 9 C. 12 D. 24 E. 27

Q12. A survey of 200 people found that 45% of them walk to work. How many of them do NOT walk to work?

- A. 90 B. 100 C. 110 D. 145 E. 155

Q13. What is $5 - (-3)$?

- A. -8 B. -2 C. 2 D. 8 E. 15

Q14. A rectangular lawn measures 12 m by 8 m, and a square pond with sides of 3 m sits on it. What fraction of the lawn is taken up by the pond?

- A. $\frac{1}{8}$ B. $\frac{3}{32}$ C. $\frac{1}{12}$ D. $\frac{9}{32}$ E. $\frac{3}{16}$

Q15. A walker travels 12 km at a steady 5 km/h. How long does the walk take?

- A. 2 hours 12 minutes
B. 2 hours 24 minutes
C. 2 hours 30 minutes
D. 2 hours 40 minutes
E. 3 hours

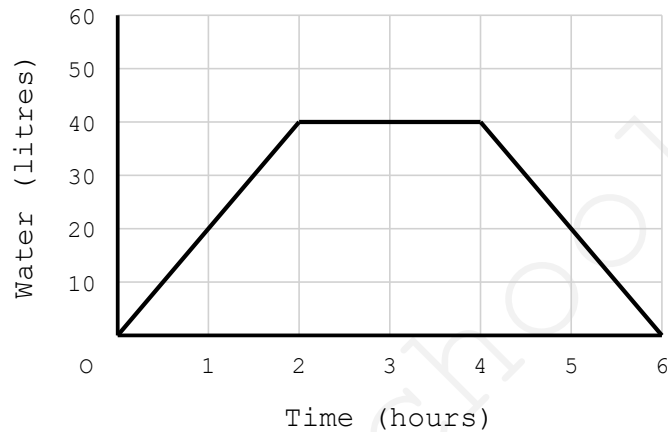
Q16. 78 marbles are shared in the ratio 4 : 9. How many marbles are in the larger share?

- A. 24 B. 36 C. 48 D. 54 E. 60

Q17. The triangular numbers are 1, 3, 6, 10, 15, ... What is the 7th triangular number?

- A. 21 B. 24 C. 26 D. 28 E. 30

Q18. The graph shows the water in a tank. How many litres are in the tank after 1 hour?



- A. 10 B. 15 C. 20 D. 30 E. 40

Q19. A shop says it sold about 2,000 tickets, rounded to the nearest 500. What is the smallest number it could really have sold?

- A. 1,500 B. 1,750 C. 1,800 D. 1,950 E. 2,000

Q20. The n th term of a sequence is $4n - 1$. Which term is equal to 43?

- A. 9th term B. 10th term C. 11th term D. 12th term E. 13th term

Q21. A regular octagon has sides of 6 cm. What is its perimeter?

- A. 36 cm B. 42 cm C. 48 cm D. 54 cm E. 64 cm

Q22. Which list puts these numbers in order, starting with the smallest?

0.4, 0.404, 0.44, 0.044

- A. 0.044, 0.4, 0.404, 0.44
- B. 0.044, 0.404, 0.4, 0.44
- C. 0.4, 0.044, 0.404, 0.44
- D. 0.044, 0.4, 0.44, 0.404
- E. 0.44, 0.404, 0.4, 0.044

Q23. A journey of 105 km is driven at a steady 42 km/h. How long does it take?

- A. 2 hours
- B. 2 hours 15 minutes
- C. 2 hours 30 minutes
- D. 2 hours 45 minutes
- E. 3 hours

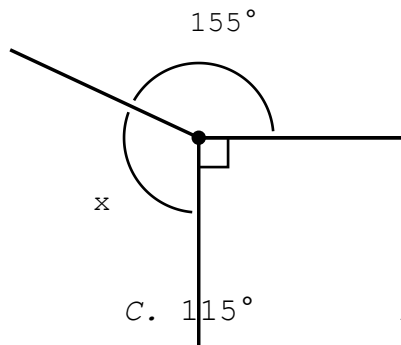
Q24. A class of 24 pupils is split into equal groups. Each group has more than 1 pupil and fewer than 24 pupils. How many different group sizes are possible?

- A. 4
- B. 5
- C. 6
- D. 7
- E. 8

Q25. Dan saves £4.50 every week for 8 weeks. He wants to buy a bike costing £50. How much more does he still need?

- A. £12
- B. £14
- C. £16
- D. £18
- E. £36

Q26. These three angles meet at a point. Work out the size of angle x .



- A. 95° B. 105° C. 115° D. 125° E. 135°

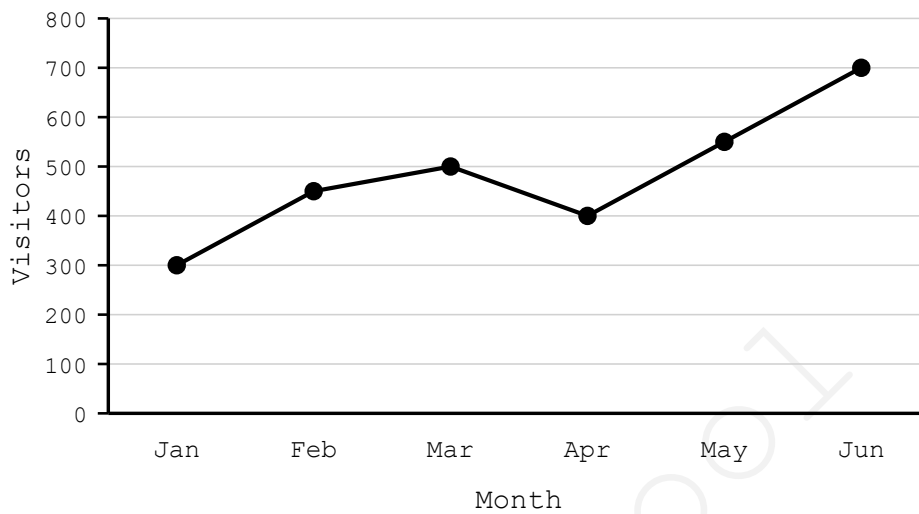
Q27. A bottle holds 1.5 litres. Glasses holding 0.2 litres each are filled from it. How many full glasses are there, and how much is left over?

- A. 7 glasses, with 100 ml left
B. 7 glasses, with 200 ml left
C. 8 glasses, with nothing left
D. 7 glasses, with 50 ml left
E. 6 glasses, with 300 ml left

Q28. A rectangle has corners at $(2, 1)$, $(8, 1)$, $(8, 5)$ and $(2, 5)$. What is its area, in squares?

- A. 10 B. 18 C. 20 D. 24 E. 30

Q29. The graph shows how many visitors a museum had each month. In which month did the number of visitors first go down?



- A. February B. March C. April D. May E. June

Q30. What is $456 + 99$?

- A. 545 B. 550 C. 555 D. 565 E. 655

Q31. A hiker starts at 25 m below sea level and climbs to 140 m above sea level. How far has she climbed?

- A. 105 m B. 115 m C. 155 m D. 165 m E. 175 m

Q32. A photocopier prints 36 pages every minute. How many pages does it print in 2 minutes 30 seconds?

- A. 54 B. 72 C. 80 D. 90 E. 108

Q33. A film starts at 20:45 and lasts 1 hour 50 minutes. Does it finish before or after midnight, and by how long?

- A. Before midnight, by 1 hour 25 minutes
- B. Before midnight, by 2 hours 25 minutes
- C. After midnight, by 35 minutes
- D. Before midnight, by 1 hour 15 minutes
- E. Exactly at midnight

Q34. What is $\frac{3}{5}$ of 25?

- A. 5
- B. 10
- C. 15
- D. 20
- E. 45

Q35. About how many days old is a child who has just had a tenth birthday?

- A. 365
- B. 1,200
- C. 3,650
- D. 5,200
- E. 36,500

Q36. What is $9 \times 4 \times 5$?

- A. 120
- B. 150
- C. 180
- D. 200
- E. 225

Q37. Four machines produce 600 items in 5 hours. How many items would 6 machines produce in 8 hours, working at the same rate?

- A. 720
- B. 960
- C. 1200
- D. 1440
- E. 1800

Q38. Six taps fill a tank in 40 minutes. How long would 8 taps take to fill the same tank?

- A. 25 minutes
- B. 30 minutes
- C. 32 minutes
- D. 35 minutes
- E. 53 minutes

Q39. How many squares with 2.5 cm sides fit inside a square with sides of 1 m?

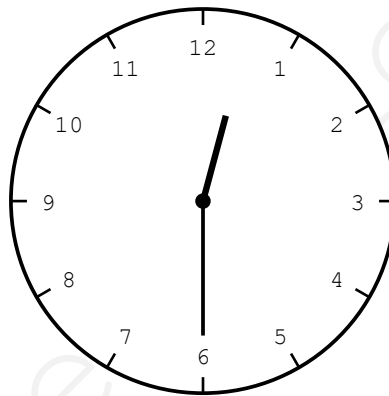
- A. 40 B. 400 C. 1,600 D. 2,500 E. 4,000

Q40. Solve for x.

$$2x + 9 = -5$$

- A. -14 B. -7 C. -2 D. 2 E. 7

Q41. The clock shows half past twelve. What is the angle between its two hands?



- A. 150° B. 160° C. 165° D. 170° E. 180°

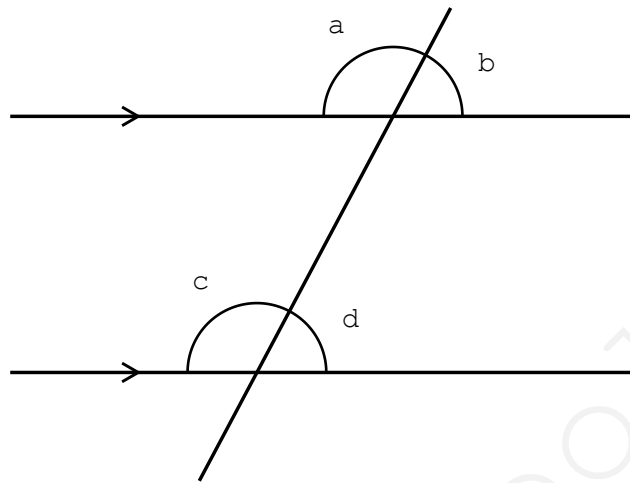
Q42. A straight line joins (0, 0) to (12, 8). Which of these points lies exactly on it?

- A. (4, 3) B. (6, 5) C. (8, 5) D. (9, 6) E. (10, 7)

Q43. In a class the ratio of pupils who walk to school to those who do not is 7 : 3. One pupil is chosen at random. What is the probability that this pupil does not walk?

- A. $\frac{3}{7}$ B. $\frac{3}{10}$ C. $\frac{7}{10}$ D. $\frac{1}{3}$ E. $\frac{1}{10}$

Q44. The two horizontal lines in the diagram are parallel. Which of the other marked angles must be the same size as angle a?



- A. b
- B. c
- C. d
- D. b and d
- E. none of them

Q45. A rectangle is measured to the nearest centimetre as 7 cm by 4 cm. What is the largest its real area could be?

- A. 28 cm²
- B. 30.25 cm²
- C. 31.5 cm²
- D. 33.75 cm²
- E. 36 cm²

Q46. A tank measures 1 m by 60 cm by 50 cm inside and is half full of water. How many litres of water are in it?

- A. 30 litres
- B. 150 litres
- C. 180 litres
- D. 300 litres
- E. 600 litres

Q47. A lorry leaves at 21:50 and the journey takes 6 hours 25 minutes. At what time does it arrive?

- A. 03:15 B. 03:45 C. 04:15 D. 04:25 E. 04:45

Q48. A price goes up by 10% and then comes down by 10%. Compared with the price at the start, is it higher, lower or the same?

- A. Higher, by 1% of the starting price
B. Lower, by 1% of the starting price
C. Exactly the same
D. Lower, by 10% of the starting price
E. There is no way to tell

Q49. A number is a multiple of 5 and has exactly three factors. What is the number?

- A. 5 B. 10 C. 15 D. 25 E. 50

Q50. Two whole numbers that follow one another add up to 47. What is the larger of them?

- A. 22 B. 23 C. 24 D. 25 E. 26