

Maths Mock Test Paper 12

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. Which of these fractions is the largest?

- A. $\frac{1}{4}$ B. $\frac{3}{10}$ C. $\frac{7}{20}$ D. $\frac{2}{5}$ E. $\frac{1}{2}$

Q2. Ben says that 1 is a prime number. Is he right?

- A. No, because a prime has two factors and 1 has only one
B. Yes, because 1 can only be divided by itself
C. Yes, because 1 is an odd number
D. No, because 1 is a square number
E. No, because prime numbers must be even

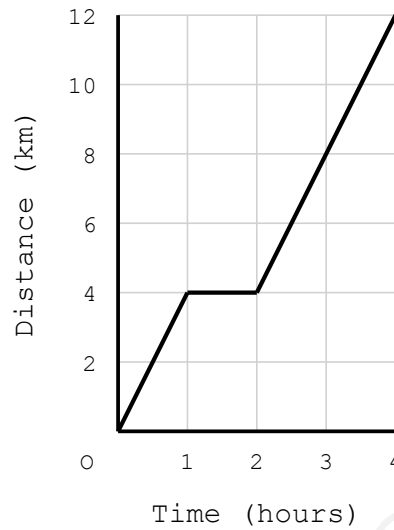
Q3. How many seconds are there in 2 minutes 30 seconds?

- A. 90 B. 110 C. 120 D. 130 E. 150

Q4. A piece of string is 1 m 25 cm long. Ali cuts off 40 cm. How much string is left?

- A. 85 cm B. 95 cm C. 75 cm D. 1 m 5 cm E. 65 cm

Q5. The graph shows Rosie's cycle ride. How far had she travelled after 1 hour?



- A. 2 km B. 3 km C. 4 km D. 6 km E. 8 km

Q6. In a school library, there are 8 thousands, 0 hundreds, 4 tens, and 1 unit of books. How many books is this?

- A. 841 B. 8,401 C. 8,041 D. 80,410 E. 8,014

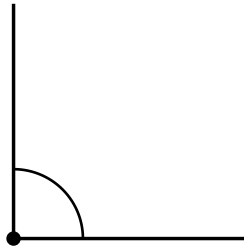
Q7. A sequence starts 5, 9, 13, 17. Which rule describes it?

- A. Start at 5 and add 3 each time
 B. Start at 4 and add 5 each time
 C. Start at 5 and double each time
 D. Start at 5 and add 4, then 5, then 6
 E. Start at 5 and add 4 each time

Q8. Estimate $593 - 208$ by rounding each number to the nearest 100.

- A. 300 B. 385 C. 400 D. 450 E. 500

Q9. What type of angle is marked in the diagram?

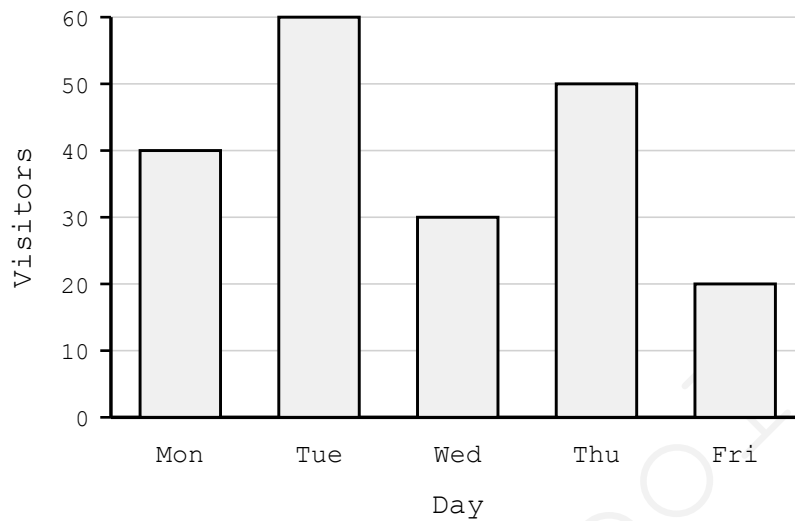


- A. Acute
- B. Right angle
- C. Obtuse
- D. Reflex
- E. Straight

Q10. Which is the smaller number, -6 or -3 , and why?

- A. -3 , because 3 is smaller than 6
- B. -6 , because 6 is bigger than 3
- C. -3 , because negative numbers grow as they go down
- D. Neither: they are the same distance from zero
- E. -6 , because it lies further below zero

Q11. The bar chart shows the visitors to a park each day. How many visitors came on Wednesday?



- A. 20 B. 30 C. 40 D. 50 E. 60

Q12. What is $-11 + 4 - 6$?

- A. -21 B. -13 C. -9 D. 1 E. 13

Q13. A floor measures 5 m by 4 m. A rug measuring 3 m by 2 m is laid on it. What fraction of the floor is left uncovered?

- A. $\frac{3}{10}$ B. $\frac{1}{2}$ C. $\frac{7}{20}$ D. $\frac{7}{10}$ E. $\frac{3}{5}$

Q14. A school orders 8 boxes of exercise books with 24 books in each box, then hands out 5 books to each of 34 pupils. How many books are left?

- A. 22 B. 12 C. 32 D. 26 E. 18

Q15. Three angles that lie on a straight line are in the ratio 2 : 3 : 4. What is the largest of these angles?

- A. 20° B. 40° C. 60° D. 80° E. 90°

Q16. A cyclist sets off at 10:15 and rides 30 km at a steady 20 km/h. At what time does the cyclist arrive?

- A. 11:15 B. 11:30 C. 11:45 D. 12:00 E. 12:15

Q17. In a test Ali scores 18 out of 25 and Beth scores 70%. Who did better, and by how much?

- A. Beth, by 2%
B. Ali, by 8%
C. Beth, by 5%
D. Ali, by 2%
E. Neither: they scored the same

Q18. A sequence begins 6, 13, 20, 27, ... What is the 11th term?

- A. 69 B. 72 C. 76 D. 83 E. 90

Q19. Convert 0.35 litres to millilitres.

- A. 3.5 ml B. 35 ml C. 305 ml D. 350 ml E. 3,500 ml

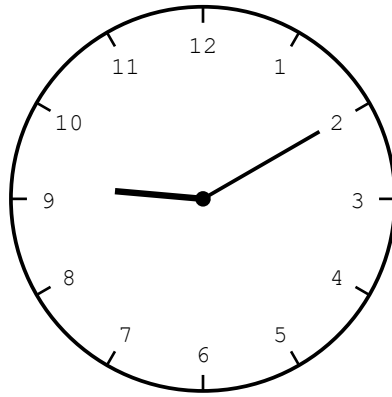
Q20. How many different rectangles with whole-centimetre sides have an area of 24 cm²?

- A. 6 B. 4 C. 8 D. 3 E. 24

Q21. A batch of biscuits needs 250 g of sugar. Ravi has a 1 kg bag that is $\frac{3}{4}$ full. Has he enough sugar for 3 batches?

- A. Yes, with 250 g left over
B. No, he is 250 g short
C. Yes, with 100 g left over
D. Yes, with nothing left over
E. No, he is 50 g short

Q22. What time is shown on this clock?



- A. 9:02 B. 10:45 C. 2:45 D. 9:50 E. 9:10

Q23. Two angles of a triangle are 40° and 75° . One side is extended to make an exterior angle at the third corner. How big is that exterior angle?

- A. 65° B. 105° C. 115° D. 125° E. 140°

Q24. A square and a rectangle both have a perimeter of 24 cm. The rectangle is 8 cm long. Which has the larger area, and by how much?

- A. The rectangle, by 4 cm^2
B. The square, by 8 cm^2
C. The rectangle, by 8 cm^2
D. Neither: the two areas are equal
E. The square, by 4 cm^2

Q25. A car park holds 3 times as many cars as vans, and there are 48 vehicles in it altogether. How many vans are there?

- A. 16 B. 24 C. 36 D. 12 E. 8

Q26. Round 8.63 to 1 decimal place.

- A. 8.5 B. 8.6 C. 8.63 D. 8.7 E. 9.0

Q27. Two runners set off together along the same road. One runs at 8 km/h and the other at 6 km/h. How far apart are they after 45 minutes?

- A. 2 km B. 1 km C. 3.5 km D. 2.5 km E. 1.5 km

Q28. A quarter of the 32 seats on a minibus are empty. How many passengers are on board?

- A. 8 B. 16 C. 28 D. 24 E. 12

Q29. A number has 6 in the tens column, 2 in the units column and 9 in the tenths column, and nothing in any other column. What is the number?

- A. 62.9 B. 26.9 C. 62.09 D. 6.29 E. 620.9

Q30. Solve for x.

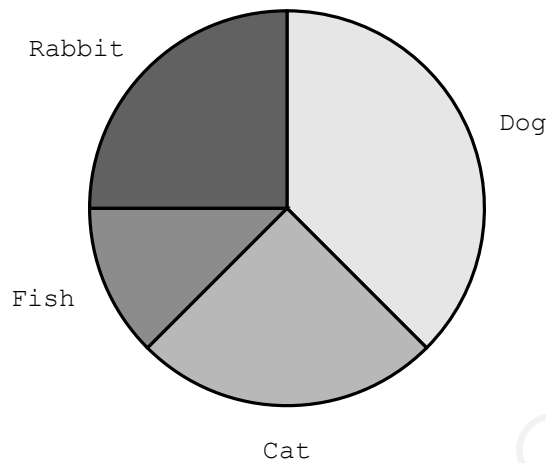
$$(x + 4) \times 3 = 27$$

- A. 3 B. 5 C. 6 D. 9 E. 23

Q31. 385 raffle tickets are shared between three classes in the ratio 2 : 5 : 4. How many tickets does the class with the smallest share receive?

- A. 35 B. 55 C. 70 D. 140 E. 175

Q32. The pie chart shows the favourite pet of 24 pupils, and the cat sector is exactly a quarter of the circle. How many pupils did not choose a cat?



- A. 6 B. 12 C. 15 D. 18 E. 20

Q33. Points A (1, 2), B (3, 5) and C lie on the same straight line, and each step from one point to the next is the same. What are the coordinates of C?

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

Q34. A tank of water at -7°C is heated until it reaches 18°C . By how many degrees has it risen?

- A. 11 B. 18 C. 23 D. 25 E. 26

Q35. Which of these does the same thing as multiplying a number by 0.5?

- A. Dividing it by 2
B. Dividing it by 5
C. Multiplying it by 5
D. Adding a half to it
E. Dividing it by 0.2

Q36. Five workers build a wall in 12 days. How long would 3 workers take to build the same wall?

- A. 15 days B. 18 days C. 20 days D. 24 days E. 36 days

Q37. A whole number multiplied by itself gives 1,764. What is the number?

- A. 38 B. 42 C. 44 D. 48 E. 36

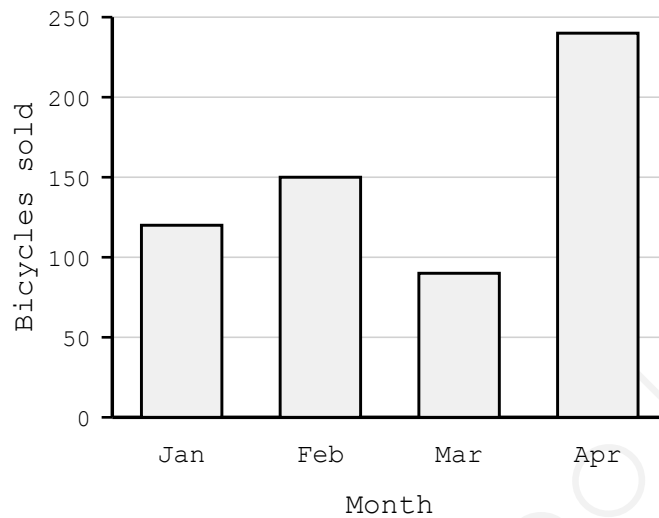
Q38. The temperature falls steadily from 8 °C to -5 °C over 4 hours. By how much does it fall each hour?

- A. 3.25 degrees
B. 3 degrees
C. 0.75 degrees
D. 2 degrees
E. 3.5 degrees

Q39. A journey starts at 09:35 and ends at 14:20. How long does it take?

- A. 4 h 15 min
B. 4 h 45 min
C. 5 h 15 min
D. 5 h 45 min
E. 6 h 45 min

Q40. Use the bar chart. In May the shop sold 25% more bicycles than in April. How many did it sell in May?



- A. 240 B. 260 C. 270 D. 280 E. 300

Q41. A triangle has vertices at $(2, 1)$, $(10, 1)$ and $(5, k)$, where k is more than 1. Its area is 20 squares. What is the value of k ?

- A. 4 B. 5 C. 6 D. 8 E. 10

Q42. A number between 50 and 100 is a multiple of 7 and leaves a remainder of 2 when it is divided by 5. What is the number?

- A. 63 B. 84 C. 91 D. 56 E. 77

Q43. Which number becomes 7,600 when rounded to the nearest hundred?

- A. 7,649 B. 7,551 C. 7,521 D. 7,489 E. 7,701

Q44. A swimming pool is 25 m long and 10 m wide and is filled to a depth of 1.4 m. How many litres of water does it hold?

- A. 35,000 litres
- B. 350,000 litres
- C. 3,500 litres
- D. 350 litres
- E. 3,500,000 litres

Q45. What is 0.045×200 ?

- A. 0.09
- B. 0.9
- C. 9
- D. 90
- E. 900

Q46. In a growing pattern the 1st shape is made from 4 squares, the 2nd from 7 squares and the 3rd from 10 squares. How many squares make the 20th shape?

- A. 61
- B. 60
- C. 64
- D. 58
- E. 70

Q47. A journey of 315 km takes 4 hours 30 minutes. What is the average speed?

- A. 60 km/h
- B. 65 km/h
- C. 70 km/h
- D. 75 km/h
- E. 80 km/h

Q48. Use the coach timetable. How much longer does Service 1 take from Bath to Oxford than Service 3 does?

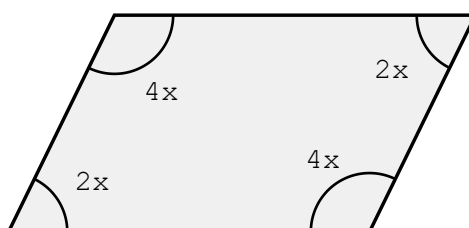
Stop	Service 1	Service 2	Service 3	Service 4
Bristol	06:40	08:15	11:30	14:05
Bath	07:05	08:38	11:55	14:28
Swindon	08:10	09:36	12:58	15:29
Oxford	09:25	10:45	14:10	16:40

- A. 5 minutes
- B. 10 minutes
- C. 15 minutes
- D. 20 minutes
- E. 25 minutes

Q49. A rectangle measures 5.2 cm by 3.9 cm. Which is the best estimate of its area, found by rounding each length to the nearest whole centimetre?

- A. 15 cm²
- B. 18 cm²
- C. 24 cm²
- D. 20.5 cm²
- E. 20 cm²

Q50. Work out the value of x in this parallelogram.



- A. 15°
- B. 20°
- C. 25°
- D. 30°
- E. 36°