

Maths Mock Test Paper 23

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 numbers of counters can be laid out as a rectangle with more than one row and more than one column?

- A. 13 B. 17 C. 21 D. 23 E. 29

Q2. A nail is laid along a ruler. One end is at the 3 cm mark and the other at the 11.4 cm mark. How long is the nail?

- A. 8.1 cm B. 8.4 cm C. 8.7 cm D. 11.4 cm E. 14.4 cm

Q3. Two identical bricks balance one brick and a 3 kg weight. How heavy is one brick?

- A. 1.5 kg B. 2 kg C. 3 kg D. 4.5 kg E. 6 kg

Q4. A cube has edges of 4 cm. What is its volume?

- A. 12 cm³ B. 16 cm³ C. 48 cm³ D. 64 cm³ E. 96 cm³

Q5. A train travels 180 km in 2 hours. What is its average speed?

- A. 60 km/h B. 80 km/h C. 90 km/h D. 180 km/h E. 360 km/h

Q6. Which of these is the number XLII written in figures?

- A. 32 B. 42 C. 48 D. 52 E. 62

Q7. Estimate 48×3 by rounding 48 to the nearest 10.

- A. 120 B. 140 C. 144 D. 150 E. 160

Q8. A box holds 24 eggs and one sixth of them break. How many eggs are left unbroken?

- A. 4 B. 6 C. 18 D. 20 E. 23

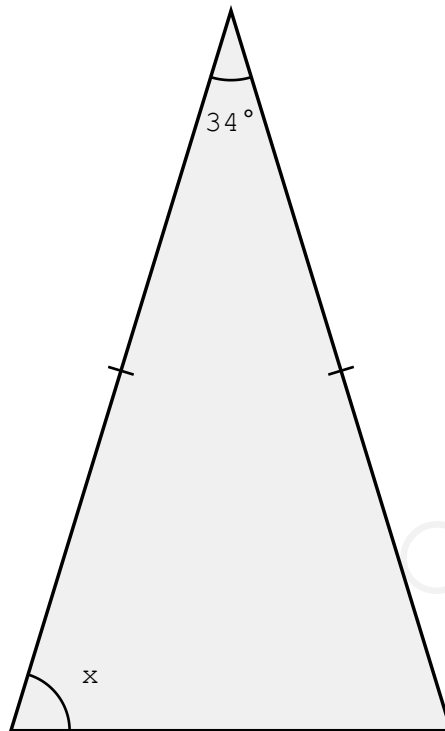
Q9. It is 14:00 in London, and New York is 5 hours behind London. What is the time in New York?

- A. 07:00 B. 09:00 C. 11:00 D. 17:00 E. 19:00

Q10. Which number is 4 more than -6?

- A. -10 B. -2 C. 2 D. 4 E. 10

Q11. The two dashed sides of this triangle are equal. Work out the size of angle x .



- A. 34° B. 56° C. 63° D. 73° E. 146°

Q12. What is $-8 + 15$?

- A. -23 B. -7 C. 7 D. 15 E. 23

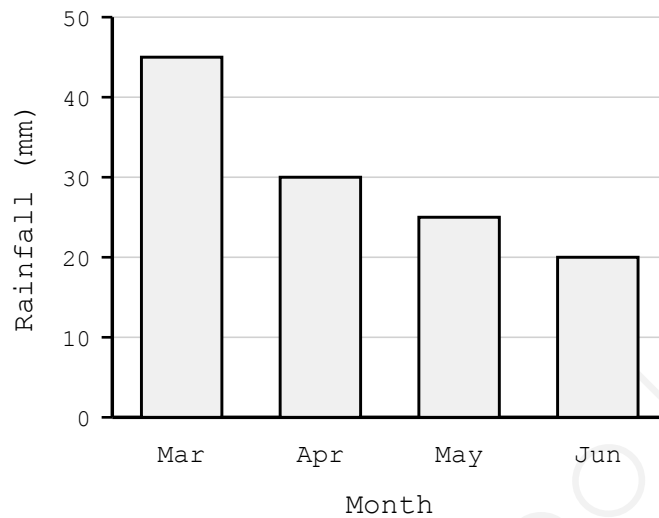
Q13. A train travels at a steady 72 km/h for 40 minutes. How far does it go?

- A. 36 km B. 42 km C. 48 km D. 54 km E. 60 km

Q14. Five books each weigh 320 g. What is their total mass in kilograms?

- A. 0.16 kg B. 1.6 kg C. 3.2 kg D. 16 kg E. 1,600 kg

Q15. The bar chart shows the rainfall in each of four months. What was the total rainfall over the four months?



- A. 100 mm B. 110 mm C. 115 mm D. 120 mm E. 130 mm

Q16. Estimate $19.6 \div 4.2$ by rounding each number to the nearest whole number.

- A. 4 B. 4.67 C. 5 D. 5.5 E. 6

Q17. In the calculation $5 + 3 \times 4$, which part has to be worked out first, and what is the answer?

- A. $5 + 3$ first, giving 32
B. 3×4 first, giving 17
C. $5 + 3$ first, giving 17
D. 3×4 first, giving 32
E. It can be done either way, giving 17

Q18. A pack of 8 batteries costs £6.40 and a pack of 12 costs £9.00. How much cheaper is each battery in the larger pack?

- A. 2p B. 4p C. 5p D. 8p E. 10p

Q19. At 9:00 two trains leave a station together. One returns every 12 minutes and the other every 18 minutes. At what time do they next leave together?

- A. 9:24 B. 9:30 C. 9:36 D. 9:48 E. 10:00

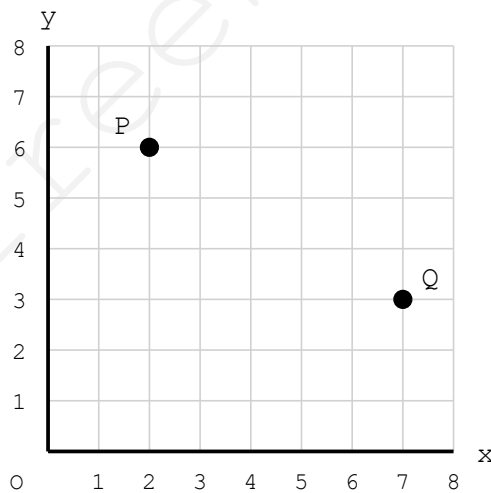
Q20. Each interior angle of a regular polygon is 150° . How many sides does it have?

- A. 9 B. 10 C. 12 D. 15 E. 18

Q21. A hall holds 250 people and tickets cost £6 each. The hall is 80% full. How much money is taken?

- A. £1,000 B. £1,200 C. £1,250 D. £1,500 E. £1,600

Q22. The grid shows point P and point Q. Which of these describes the move from P to Q?



- A. 5 squares right and 3 squares down
 B. 3 squares right and 5 squares down
 C. 5 squares right and 3 squares up
 D. 5 squares left and 3 squares down
 E. 3 squares left and 5 squares up

Q23. Solve for x .

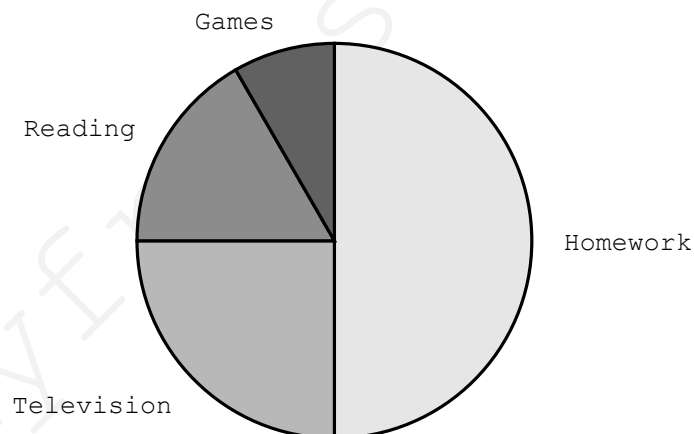
$$5x + 6 = 41$$

- A. 6 B. 7 C. 8 D. 9 E. 35

Q24. A month has 30 days and its first day is a Wednesday. How many Fridays are there in that month?

- A. 3
B. 4
C. 5
D. 6
E. It depends which month it is

Q25. The pie chart shows how 60 pupils spent an evening. Which activity took up exactly a quarter of the chart?



- A. Homework
B. Television
C. Reading
D. Games
E. None of them

Q26. What is $8 \times 3 \times 2$?

- A. 13 B. 24 C. 36 D. 48 E. 96

Q27. Three pencils cost the same as two pens, and a pen costs 45p. What do five pencils cost?

- A. £1.35 B. £1.50 C. £2.25 D. £2.50 E. £3.00

Q28. A bicycle wheel has a diameter of 70 cm. Taking π as 3, roughly how far does the wheel travel in one full turn?

- A. 70 cm B. 140 cm C. 210 cm D. 280 cm E. 350 cm

Q29. Convert 2,500 ml to litres.

- A. 0.25 litres
B. 2.05 litres
C. 2.5 litres
D. 25 litres
E. 250 litres

Q30. Five temperatures were recorded: -3°C , 2°C , -9°C , -1°C and 6°C . What is the range?

- A. 9 B. 11 C. 13 D. 15 E. 17

Q31. A train travels 289 km in 2.8 hours. Estimate its average speed (km/h) by rounding each value to a convenient number.

- A. 80 B. 90 C. 100 D. 103 E. 110

Q32. What is 10 cubed?

- A. 30 B. 100 C. 300 D. 1,000 E. 10,000

Q33. What is the value of the digit 7 in the number 3,472,819?

- A. 7000 B. 70000 C. 700 D. 700000 E. 70

Q34. Three friends share 5 pizzas equally between them. How much pizza does each friend get?

- A. $1 \frac{1}{2}$ pizzas
B. $1 \frac{2}{3}$ pizzas
C. $1 \frac{3}{5}$ pizzas
D. $2 \frac{1}{3}$ pizzas
E. $\frac{3}{5}$ of a pizza

Q35. Printer A prints 24 pages a minute. Printer B prints 390 pages in 15 minutes. Which printer is faster, and by how many pages a minute?

- A. Printer A, by 2 pages a minute
B. Printer B, by 2 pages a minute
C. Printer A, by 4 pages a minute
D. Printer B, by 4 pages a minute
E. They print at the same rate

Q36. A cyclist rides 45 km in 3 hours, including a 30 minute rest. What is her average speed for the whole journey, including the rest?

- A. 9 km/h B. 12 km/h C. 15 km/h D. 18 km/h E. 22.5 km/h

Q37. A number has 6 hundred-thousands, 4 ten-thousands, 2 thousands, 5 tens and 3 ones. What is the number?

- A. 642,053 B. 642,503 C. 640,253 D. 642,530 E. 642,305

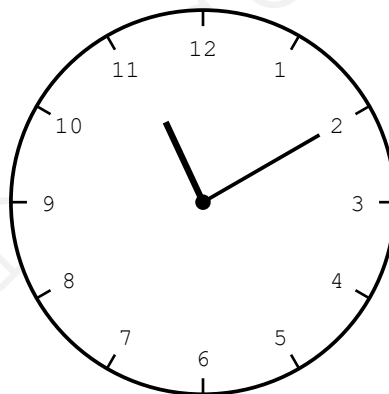
Q38. A train leaves at 16:42 and arrives at 20:15. How long is the journey?

- A. 3 hours 13 minutes
- B. 3 hours 27 minutes
- C. 3 hours 33 minutes
- D. 4 hours 27 minutes
- E. 4 hours 33 minutes

Q39. A cuboid has a volume of 480 cm^3 and a height of 6 cm. What is the area of its base?

- A. 40 cm^2
- B. 60 cm^2
- C. 80 cm^2
- D. 96 cm^2
- E. $2,880 \text{ cm}^2$

Q40. What is the size of the angle between the hands of this clock?



- A. 85°
- B. 90°
- C. 95°
- D. 100°
- E. 105°

Q41. The three-digit number $3\square 4$ is a multiple of 4. Which of these digits is the missing one?

- A. 1
- B. 2
- C. 3
- D. 5
- E. 7

Q42. Use the two-way table. One pupil is chosen at random from the whole table. What is the probability that the pupil is in Year 5 and joined art?

Pupils	Chess	Art	Drama
Year 5	6	10	9
Year 6	10	5	10

- A. $\frac{1}{25}$ B. $\frac{3}{50}$ C. $\frac{1}{10}$ D. $\frac{4}{25}$ E. $\frac{1}{5}$

Q43. A pattern of squares in a row uses 5 matches for 1 square, 9 matches for 2 squares and 13 for 3 squares. How many matches are needed for 10 squares?

- A. 31 B. 37 C. 41 D. 45 E. 50

Q44. In a competition a goal scores 40 points and a foul scores -15 points. A team scored 3 goals and finished with 60 points. How many fouls did they commit?

- A. 2 B. 3 C. 4 D. 5 E. 6

Q45. A train travels 315 km in 3.5 hours. What is its average speed?

- A. 70 km/h B. 85 km/h C. 90 km/h D. 95 km/h E. 105 km/h

Q46. Round 3.14159 to 4 significant figures.

- A. 3.1 B. 3.14 C. 3.141 D. 3.142 E. 3.15

Q47. A jumper is reduced by 20% in a sale and now costs £36. What was the original price?

- A. £43.20 B. £44 C. £45 D. £46.80 E. £48

Q48. What is half of half of half of 64?

- A. 4 B. 8 C. 16 D. 24 E. 32

Q49. A clock takes 5 seconds to strike 6 o'clock. At the same rate, how long does it take to strike 12 o'clock?

- A. 10 seconds
B. 11 seconds
C. 12 seconds
D. 15 seconds
E. 16 seconds

Q50. Adult tickets cost £12 and child tickets cost £7. A family of 6 pays £52 altogether. How many children are in the family?

- A. 2 B. 3 C. 4 D. 5 E. 6