Edexcel GCSE Mathematics Non-Calculator 2024 Higher Paper 2 Revision Worksheet

Problem Solving and Exercises

- 1. Solve the equation below for *x*: 3x 7 = 2x + 8
- 2. A cylinder has a radius of 5 cm and a height of 12 cm. Calculate its volume. Give your answer in terms of π .
- 3. Expand and simplify: 2(x+3) 4(x-2)
- 4. The nth term of a sequence is given by $2n^2 + 3n$. Find the 5th term of the sequence.
- 5. Calculate the value of y when $y = \frac{5x}{2} 4$ and x = 6.
- 6. A shop sells pencils in packs of 12 for £2.
- 7. What is the cost per pencil?
- 8. Factorise completely: $6x^2 9x$
- 8. The probability of picking a red ball from a bag is $\frac{3}{8}$. What is the probability of NOT picking a red ball?
- 9. Work out: $\frac{2}{3} + \frac{5}{6}$
- 10. The straight line *L* has the equation y = 4x 1. What is the gradient of the line?
- 12. Calculate the area of a triangle with base 10 cm and height 7 cm.
- 13. A car travels 150 km in 2 hours 30 minutes. Calculate its average speed in km/h.
- 14. Simplify: $\frac{4^3 \times 4^2}{4^4}$
- 15. The ratio of boys to girls in a class is 5:7. If there are 24 students in total, how many are boys?
- 16. The number of hours, H, that some machines take to make 5000 bottles is given by the formula: $H = \frac{72}{n}$ where n is the number of machines.

On Monday, 6 machines made 5000 bottles. On Tuesday, 9 machines made 5000 bottles.

The machines took more time to make the bottles on Monday than on Tuesday.

Question:

How much more time did it take to make the bottles on Monday than on Tuesday?