
Year 9 End-of-Year Maths

Paper 05 | KS3 | 50 marks

Name: _____ Date: _____

Suggested time: 60 minutes. Total marks: 50.

Answer all 30 questions. No calculator. Show your working.

Questions 1-10: 1 mark each. Questions 11-30: 2 marks each.

These original practice papers sample the curriculum; they are not official national tests.

Topics and difficulty become more demanding through the paper.

Tutor: use alongside classwork and adapt to the topics already taught.

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Paper 05 | KS3 | 50 marks

Name: _____ Date: _____

1. Calculate $-7 + 14$. [1 mark]

2. Calculate $7 - 15$. [1 mark]

3. Calculate $7 + 8 \times 4$. [1 mark]

4. Simplify $x^7 \times x^3 \div x^2$, for non-zero x . [1 mark]

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Paper 05 | KS3 | 50 marks

Name: _____ Date: _____

5. Write 84 as a product of prime factors. [1 mark]

6. Write 1800000 in standard form. [1 mark]

7. Calculate $\frac{2}{8} + \frac{1}{16}$. [1 mark]

8. Calculate $\frac{7}{8} \times \frac{3}{9}$. [1 mark]

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Paper 05 | KS3 | 50 marks

Name: _____ Date: _____

9. Calculate 1.55×4 . [1 mark]

10. Find 25% of 180. [1 mark]

11. A coat costs GBP 180. Its price is reduced by 20%. Find the new price. [2 marks]

12. Share 900 in the ratio 2:3. [2 marks]

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13. 7 identical notebooks cost GBP 14. Find the cost of 8 notebooks. [2 marks]

14. Simplify $7x + 8x - 2x$. [2 marks]

15. Factorise $x^2 + 15x + 56$. [2 marks]

16. Solve simultaneously $x + y = 15$ and $2x + y = 22$. [2 marks]

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17. A sequence begins 8, 15, 22, 29. Find its n th-term rule and 20th term. [2 marks]

18. Rearrange $y = 7x - 8$ to make x the subject. [2 marks]

19. A regular polygon has 10 sides. Find each exterior angle as an exact value. [2 marks]

20. A circle has radius 7 cm. Find its circumference and area in terms of π . [2 marks]

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21. A parallelogram has base 14 cm and perpendicular height 8 cm. Find its area. [2 marks]

22. A right-angled triangle has perpendicular sides 21 cm and 28 cm. Find its hypotenuse. [2 marks]

23. Translate $(-7, 8)$ by 10 units right and 10 units down. [2 marks]

24. A shape is enlarged by scale factor 3 about the origin. Where does $(7, -8)$ map to? How does its area change? [2 marks]

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25. Find the mean, median and range of 5, 7, 9, 11, 13. [2 marks]

26. A bag has 7 red and 8 blue counters. Find $P(\text{red})$ for one random draw. [2 marks]

27. A bag has 7 red and 8 blue counters. Two are drawn without replacement. Find $P(\text{both red})$. [2 marks]

28. A car travels 21 km in 7 minutes. Find its average speed in km/h. [2 marks]

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29. A club sells 7 adult tickets at GBP 8 and 8 child tickets at GBP 5. Costs are GBP 38. Find the profit.
[2 marks]

30. A rectangle has width 7 cm and length 8 cm. Both dimensions are doubled. Explain how its area changes. Find the new area. [2 marks]
