

GCSE Mathematics: End of year

Priority Learning

Test

Name: _____ Date: _____

Question:	1	2	3	4	5	6	7
Marks:	4	3	6	3	4	3	3
Score:							
Question:	8	9	10	11	12	13	Total
Marks:	3	4	7	6	4	10	60
Score:							

Aims of this worksheet:

- practice exam technique
- practice what is covered in the year

1. Solve the following equations,

(a) $5a = 35$

(1 mark)

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(b) $c - 11 = 26$

(1 mark)

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(c) $3b + 4 = -26$

(2 marks)

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2. Fully factorise;

(a) $x^2 - 3x$

(1 mark)

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(b) $15x - 25y$

(1 mark)

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(c) $4x - 12$

(1 mark)

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3. Solve the following in terms of x . Give your answer as a fraction in its simplest form where appropriate.

(a) $4(x + 3) = 2x - 10$

(3 marks)

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(b) $5(5 - 2x) = 7x + 15$

(3 marks)

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4. Given that $p = 3a - 7b$, find the value of a when $p = 28$ and $b = 2$.

(3 marks)

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5. Calculate

(a) 3^3 (1 mark)

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(b) $\sqrt{25 \times 36}$ (1 mark)

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(c) $4^{\frac{3}{2}} + 9^{\frac{1}{2}}$ (2 marks)

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6. Expand

(a) $x(6x - 5)$ (1 mark)

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(b) $7(9 - 2x)$ (1 mark)

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(c) $2x(7 + 16x)$ (1 mark)

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7. Simplify

(a) $\frac{a^4}{a^6}$ (1 mark)

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(b) $b^5 \times b^{-7}$ (1 mark)

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(c) $(c^6)^4$ (1 mark)

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8. Find the value of t

(a) $4t = -44$ (1 mark)

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(b) $52 - t = 7$ (1 mark)

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(c) $\frac{t}{3} = -9$ (1 mark)

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9. Fully simplify

(a) $7s + 3t - 4s + 8t$ (2 marks)

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(b) $4a + 4b - 5a + 10b$

(2 marks)

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10. Factorise fully

(a) $6x^2 - 3x^6$

(2 marks)

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(b) $x^4y^6 - xy$

(2 marks)

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(c) $24x^4y^6 - 30x^7y$

(3 marks)

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11. Given $s = ut + \frac{1}{2}at^2$

(a) Work out the value of s when $a = 9.8, t = 10$ and $u = 5$.

(3 marks)

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(b) Work out the value of u when $a = 10, t = 15$ and $s = 1230$.

(3 marks)

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12. Simplify fully

(a) $\frac{y^5 \times y^6}{y^{-9}}$

(2 marks)

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(b) $y^4 \times \frac{1}{y^9}$

(1 mark)

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(c) y^0

(1 mark)

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13. Factorise and solve

(a) $x^2 + 2x - 24 = 0$

(3 marks)

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(b) $x^2 - 12x + 32 = 0$

(3 marks)

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(c) $x^2 - 2x - 60 = 3$

(4 marks)

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