

MATHS TEACHER HUB
GCSE Higher revision sheet - 6

1. Estimate $\frac{8.9^2 - \sqrt{50}}{0.53}$

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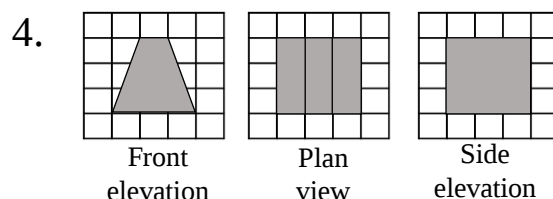
2. $a = \begin{pmatrix} 7 \\ -2 \end{pmatrix}$ $b = \begin{pmatrix} -3 \\ 4 \end{pmatrix}$

Work out $2a - b$

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3. Ben has 'x' sweets.
 Jacob has double the amount of Ben
 and Tim has 3 less than Jacob.
 All together they have 62 sweets.
 How many sweets does Tim have?

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Draw a 3D sketch of the object.

5. A cube has a surface area of 384 cm^2
 Work out the volume of the cube.

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6. $A = (12,5)$ $B = (-16,7)$

Work out the coordinates of the midpoint of AB .

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7. Write $0.\dot{1}\dot{5}$ as a fraction in its simplest form.

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8. Expand and simplify
 $(x + 1)(2x - 1)(x - 3)$

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9. A tent has been reduced by 15% in a sale.

It is now priced at £238

What was the original price?

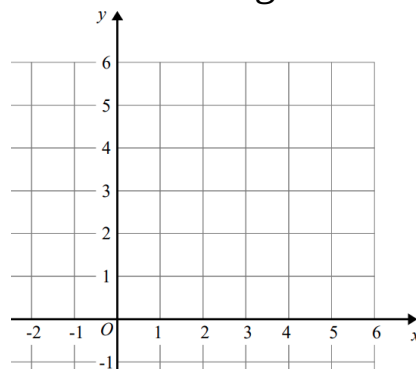
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10. On the grid shade the region that satisfy

$$x > -1$$

$$x + y \leq 5$$

$$y > 2$$



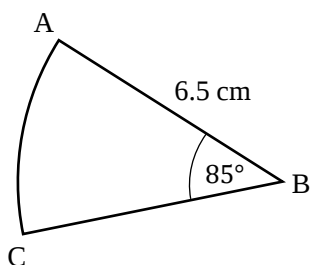
11. Simplify $\frac{x^2 - 36}{x^2 - 5x - 6}$

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12. A liquid has a density of 1.6g/ml
Find the mass of 330ml of the liquid.

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13. Work out the perimeter of the sector ABC.



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14. A regular polygon has an interior angle of 156°

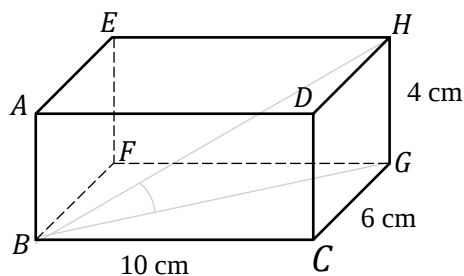
How many sides does this polygon have?

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15. Write $\frac{3\sqrt{2}}{1 + \sqrt{2}}$ in the form $a + b\sqrt{2}$

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16. Work out the angle HBG



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