Day 216 **B Tier 10-a-day**

1 Work out

(a) $2^2 + 4^3$

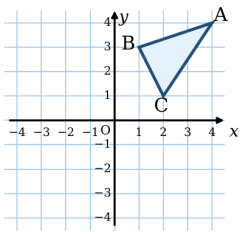
(b) $\sqrt{9} - 4^2$

2 Complete the table of values for $y = -4x + 6$

x	0	1	2	3	4
y	6	2			

3 A jug holds 2.2 litres of juice.
Each glass holds 200 ml.
How many glasses can be filled from the jug?

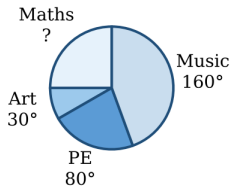
4 The diagram shows triangle ABC on a grid.
(a) Write down the coordinates of the image of B after a reflection in the line x = 2.
(b) Write down the coordinates of the image of C after a reflection in the y-axis.



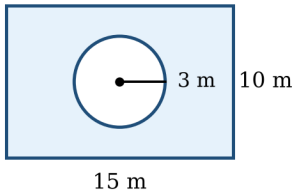
5 Expand and simplify $(2x - 1)(x + 4)$

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6 The pie chart shows the favourite choices of 72 people.
The angle for Maths is not shown.
Work out how many people chose Maths.



7 The diagram shows a rectangle 15 m by 10 m with a circle of radius 3 m cut out.
The circle is in the centre of the rectangle.
Work out the area of the shaded region.
Give your answer in terms of π.
The diagram is not drawn accurately.



8 Here are four digit cards.
3 2 5 7
Use all four cards to make the largest possible even number.

9 Pasta is sold in two sizes.
Small: 500 g for £1
Large: 750 g for £1.72
Which size is better value for money?
You must show your working.

10 Solve $\frac{3x + 2}{5} = 4$