Day 66 **B Tier 10-a-day**

1 (a) Write 10:45 pm using the 24-hour clock.
(b) Write 16:05 using am or pm.

2 A road is 0.8 km long.
It is drawn on a map with scale 1 : 20 000.
Work out the length of the road on the map, in cm.

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

x	0	1	2	3	4
y		2	6		

4 The table shows the pets owned by each student in a class.
(a) Write down the mode.
(b) Work out the median.

Pets	2	3	4	5	6	7
Frequency	7	9	8	5	4	8

5 $A = 2^2 \times 5^2 \times 7$
$B = 2^3 \times 3^3$
Write down, as a product of prime factors,
(a) the HCF of A and B
(b) the LCM of A and B

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6 In a test, the mean mark of 6 boys is 63. The mean mark of 4 girls is 78. Work out the mean mark of all 10 students.	
7 A cylinder has radius 7 m and height 5 m. Work out its volume. Give your answer in terms of π.	
8 The equation $x^3 + 2x = 54$ has a solution between 3 and 4. (Calculator) Use trial and improvement to find this solution. Give your answer correct to 1 decimal place.	
9 The length of a rectangle is 8 cm and its width is 14 cm. Both measurements are correct to the nearest cm. Work out the upper bound for the perimeter of the rectangle.	
10 A rectangle has length $(x + 2)$ cm and width $(x - 5)$ cm. The area of the rectangle is 44 cm^2. (a) Show that $x^2 - 3x - 54 = 0$ (b) Hence work out the length of the rectangle.	