Day 9	A Tier 10-a-day
1 (a) Write 0.0036 in standard form. (b) Write 5.07×10^3 as an ordinary number.	
2 A jug holds 7500 cm^3 of water. Write this volume in litres.	
3 An isosceles triangle has two equal sides of length (2x + 10) cm and (x + 20) cm. The third side is 13 cm. Work out the perimeter of the triangle.	
4 Here are four fractions: $\frac{6}{16}$ $\frac{12}{15}$ $\frac{5}{16}$ $\frac{4}{6}$ Which one of these fractions is equal to a recurring decimal?	
5 Solve the simultaneous equations $6x - 3y = -3$ $-x + 3y = -2$	

Day 9 **A Tier 10-a-day**

6 Work out $(2.5 \times 10^{-2}) \times (8 \times 10^{2})$
Give your answer in standard form.

7 a : b = 3 : 5
b : c = 5 : 8
(a) Work out the ratio a : b : c
(b) a, b and c add up to 80. Work out the value of c.

8 Write as a single fraction

$$\frac{-4}{(x-4)} + \frac{4}{(x+5)}$$

9 The table gives information about 59 measurements.
A histogram is drawn using this information.
(a) Work out the missing frequency.
(b) Work out the height of the bar for the class $20 < t \leq 30$.

Time, t (minutes)	Frequency
$10 < t \leq 15$	13
$15 < t \leq 20$	?
$20 < t \leq 30$	14
$30 < t \leq 60$	18

10 Ship A sails 20 km from a port on a bearing of 040°.
Ship B sails 10 km from the same port on a bearing of 265°. (Calculator)
Work out the distance between the two ships.
Give your answer to 3 significant figures.