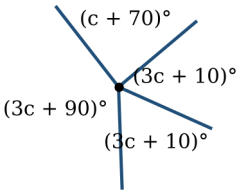
Day 309 **B Tier 10-a-day**

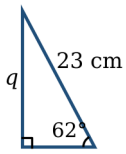
1 The diagram shows 4 angles round a point.
Work out the value of c.
The diagram is not drawn accurately.



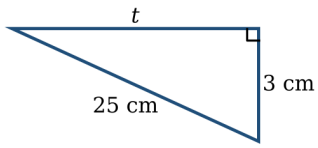
2 A piece of wood has a density of 0.6 g/cm^3 and a volume of 30 cm^3.
Work out its mass.

3 Work out the value of 6a + 3b
when a = −3 and b = 4

4 Calculate the length of q. (Calculator)
Give your answer correct to 1 decimal place.
The diagram is not drawn accurately.



5 Write each answer as a single power of 2.
(a) $(2^2)^4$
(b) $2^5 \times 2^4 \div 2^2$

Day 309	B Tier 10-a-day
6 In a bag of counters, the ratio of blue to red is 1 : 4. The ratio of red to black is 3 : 4. Write down the ratio blue : red : black.	
7 Find the length of t. (Calculator) Give your answer correct to 1 decimal place. The diagram is not drawn accurately. 	
8 Work out $(1.7 \times 10^6) + (1.3 \times 10^6)$ Give your answer in standard form.	
9 Here is an iteration formula. $x_{n+1} = \sqrt{2x_n + 14}$ $x_0 = 1$ (a) Work out x_1 (b) Work out x_2. Give your answer correct to 3 decimal places. (Calculator)	
10 Write 825 as a product of its prime factors. Give your answer in index form.	