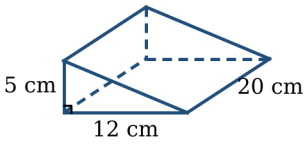
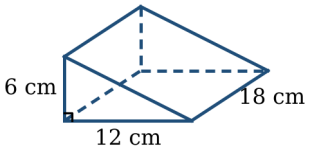
Day 346	A Tier 10-a-day
1 The diagram shows a triangular prism. The cross-section is a right-angled triangle. Work out the total surface area of the prism. The diagram is not drawn accurately.  	
2 Isla, Ella and Jack share 63 marbles in the ratio 4 : 9 : 8. How many more marbles does Ella get than Isla?	
3 Work out $\sqrt{7.2^2 + 9.4^2}$ (Calculator) Give your answer correct to 3 significant figures.	
4 Solve $12x^2 + 7x - 10 = 0$	
5 The mean of the five numbers x, 16, 22, 2, 20 is 15. Work out the value of x.	

Day 346 **A Tier 10-a-day**

6 The diagram shows a prism.
The cross-section of the prism is a right-angled triangle.
Work out the volume of the prism.
The diagram is not drawn accurately.



7 Write as a single fraction

$$\frac{-1}{(x+5)} + \frac{4}{(x+1)}$$

8 Rationalise the denominator of $\frac{15}{\sqrt{5}}$

Give your answer in its simplest form.

9 Make x the subject of $y = \frac{3x-4}{3x+1}$

10 A bag contains 6 black pens and 2 blue pens.
Three pens are taken at random without replacement.
Work out the probability that all three pens are black.