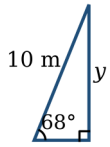
Day 233	B Tier 10-a-day
1 Here are the amounts needed to make a fruit crumble for 2 people. 50 g of butter, 30 g of sugar Work out the amounts needed to make a fruit crumble for 12 people.	
2 Simplify fully (a) $10a^2 \div 5a$ (b) $9pq \div 3p$	
3 A train ticket costs £250. The price goes up by 5%. (a) Work out the new price. (b) A car is worth £2000. Its value goes down by 40% in a year. Work out its new value.	
4 A rectangle is 10 m long and 2 m wide. It is enlarged by scale factor 1.5. (a) Write down the length and width of the enlarged rectangle. (b) Work out the perimeter of the enlarged rectangle.	
5 I think of a number. I multiply it by 4 and then subtract 4. The answer is 36. Work out my number.	

Day 233 **B Tier 10-a-day**

6 Write these numbers in order of size.
Start with the smallest.
3.8×10^{1}, 6, 6.3×10^{-5}, 0.15

7 Work out the length of y. (Calculator)
Give your answer correct to 1 decimal place.
The diagram is not drawn accurately.



8 In a test, the mean mark of 12 Class A is 49.
The mean mark of 8 Class B is 79.
Work out the mean mark of all 20 students.

9 Here is an iteration formula.
$x_{n+1} = \sqrt{5x_n + 4}$
$x_0 = 1$
(a) Work out x_1
(b) Work out x_2. Give your answer correct to 3 decimal places. (Calculator)

10 A boat sails 3 m on a bearing of 090° from P to Q, then 4 m on a bearing of 180° to R. (Calculator)
(a) Work out the distance PR.
(b) Work out the bearing of R from P.
Give your answers correct to 1 decimal place.

