Day 49 **B Tier 10-a-day**

1 Write these numbers in order of size.
Start with the smallest number.
0.6, 0.65, 0.692, 0.58

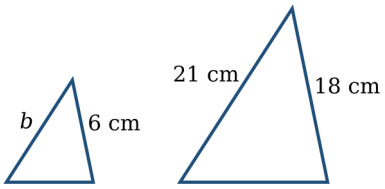
2 ABCD is a rhombus.
Angle DAB = 56°.
(a) Write down the size of angle BCD.
(b) Work out the size of angle ABC.

3 The probability that a biased dice lands on a six is $\frac{1}{5}$.
Work out how many times you would expect this to happen in 50 rolls of the dice.

4 Sam says, "When you square a number you always get a bigger number."
Give an example to show that Sam is wrong.

5 The table shows some information about 85 members of a leisure centre.
A person is chosen at random.
Find the probability that the person is in the group "Children" and chose "Swim".

	Swim	Gym	Total
Adults	11		37
Children		21	
Total			85

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6 The two triangles are similar. (a) Write down the scale factor of the enlargement from the smaller triangle to the larger triangle. (b) Work out the value of b. The diagram is not drawn accurately.  	
7 Expand and simplify $(3x - 4)^2$	
8 Use the fact that 28 × 29 = 812 to work out (a) 280 × 290 (b) 81.2 ÷ 280	
9 A cafe sells cakes and drinks. All cakes cost the same and all drinks cost the same. 3 cakes and 1 drink cost £19. 2 cakes and 1 drink cost £14. Work out the cost of one cake and the cost of one drink.	
10 A bag contains 2 mint sweets and 6 toffee sweets. Ravi takes one at random and does not replace it, then takes a second. Work out the probability that both are mint.	