Day 268 **B Tier 10-a-day**

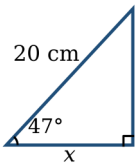
1 A pencil costs p pence.
A pen costs 20 pence more than a pencil.
(a) Write an expression, in terms of p, for the cost of a pen.
(b) Write an expression, in terms of p, for the total cost of 3 pencils and 3 pens. Give your answer in its simplest form.

2 Estimate the value of
$2.2 \times 2.16 + 0.393$
Show your rounding to 1 significant figure.

3 The table shows the probabilities of a biased dice landing on each colour.
(a) Work out the value of x.
(b) The biased dice is used 200 times. How many times would you expect Green?

Colour	Red	Blue	Green	Yellow
Probability	0.05	x	0.25	0.4

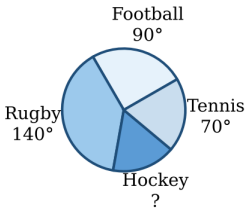
4 Find the length of x. (Calculator)
Give your answer correct to 1 decimal place.
The diagram is not drawn accurately.



5 $s = ut + \frac{1}{2}at^2$
Work out the value of s when u = 7, a = 6 and t = 4

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6 The pie chart shows the favourite choices of 360 people.
The angle for Hockey is not shown.
Work out how many people chose Hockey.



7 A is the point (3, 4) and B is the point (−5, 10).
(a) Work out the coordinates of the midpoint of AB.
(b) Work out the length of AB.

8 There are 3.9×10^4 fish in a lake.
The number doubles every day.
How many are there after 5 days?
Give your answer in standard form.

9 Complete the table of values for $y = x - 2$

x	0	1	2	3	4
y			0		2

10 Farah's rent goes up by 35%. (Calculator)
The new rent is £54 a month.
Work out the rent before the increase.