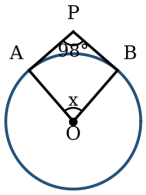
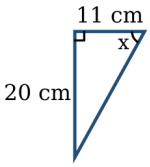
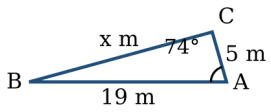
Day 62	A Tier 10-a-day
1 PA and PB are tangents to a circle with centre O. Angle APB = 98°. Work out the size of angle x (angle AOB). Give a reason for each step of your working. 	
2 Write these numbers in order of size, starting with the smallest. 0.32 94% $\frac{3}{5}$ $\frac{1}{4}$	
3 Work out the size of angle x. (Calculator) Give your answer to 1 decimal place. The diagram is not drawn accurately. 	
4 Make x the subject of $y = \frac{5x - 4}{4}$	
5 No tax is paid on the first £10,000 of income. Tax of 25% is paid on the next £25,000. Tax of 45% is paid on all income above £35,000. (Calculator) Jack earns £53,000 a year. Work out the income tax paid.	

Day 62	A Tier 10-a-day

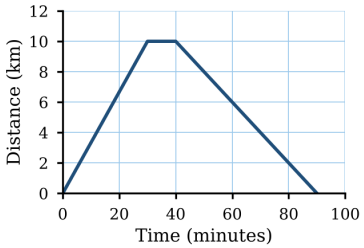
6 y is inversely proportional to x^2.
When x = 4, y = 10.
(a) Find a formula for y in terms of x.
(b) Work out the value of y when x = 5.

7 (a) Factorise $4y^2 - 9z^2$
(b) Use the same idea to work out $167^2 - 33^2$ without a calculator.

8 Work out the value of x. (Calculator)
Give your answer to 3 significant figures.
The diagram is not drawn accurately.



9 The graph shows the distance travelled by a cyclist.
(a) For how many minutes did the cyclist stop?
(b) Work out the speed during the first part of the journey. Give your answer in km/h.



10 Solve $\frac{4}{(x+3)} + \frac{1}{(x-3)} = 1$