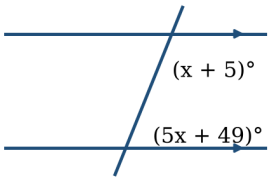
Day 365 **A Tier 10-a-day**

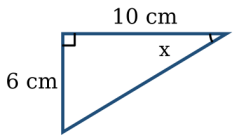
1 Oscar is paid £13.80 per hour for a basic week of 38 hours. (Calculator)
Overtime is paid at double time.
Last week Oscar worked 7 hours of overtime.
Work out Oscar's total pay for the week.

2 The diagram shows two parallel lines crossed by a straight line.
(a) Work out the value of x.
(b) Work out the size of the angle marked (x + 5)°.
The diagram is not drawn accurately.

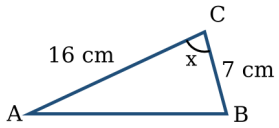


3 Simplify fully
(a) $\frac{10x^3y^2}{6x^2y^6}$
(b) $\frac{(5x^2)^2}{2x^3}$

4 Work out the size of angle x. (Calculator)
Give your answer to 1 decimal place.
The diagram is not drawn accurately.



5 A new car is worth £5000. (Calculator)
Its value falls by 12% each year.
Work out its value after 2 years.

Day 365	A Tier 10-a-day
6 The area of triangle ABC is 55.1 cm^2. (Calculator) Angle x is acute. Work out the size of angle x. Give your answer to 1 decimal place. The diagram is not drawn accurately.  	
7 $f(x) = x^3 + 4x^2 + 6x - 5$ Show that the equation f(x) = 0 has a solution between x = 0 and x = 1.	
8 Write $0.7\dot{2}$ as a fraction in its simplest form.	
9 Solve $\frac{4x - 4}{2} = \frac{5x + 2}{3}$	
10 y is directly proportional to the square root of x. When x = 36, y = 54. (a) Find a formula for y in terms of x. (b) Work out the value of y when x = 64.	