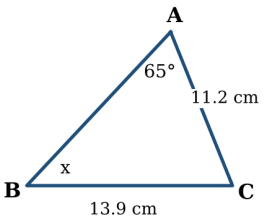
Day 35	IGCSE 10-a-day

1 A curve has equation $y = (x + 3)(x - 3)(x + 3)$.
Find the equation of the tangent to the curve at the point where $x = -2$.

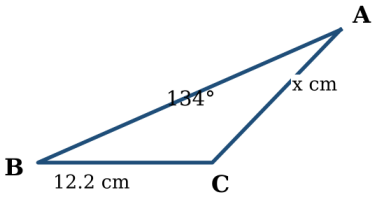
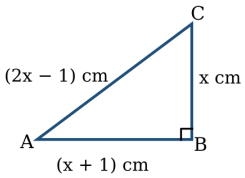
2 Angle B is acute.
Work out the size of angle ABC.
Give your answer correct to 1 decimal place.
(Calculator)



3 The equation of a curve is $y = x^2 - \frac{12}{x}$.
Work out the gradient of the curve at the point where $x = 4$.

4 Solve $\frac{5}{x - 5} - \frac{6}{x + 4} = \frac{2}{3}$

5 A is 10% less than D.
D is 5% more than S.
Work out A as a percentage of S.

Day 35	IGCSE 10-a-day
6 The area of triangle ABC is 56.7 cm^2. Work out the length of AC. Give your answer correct to 3 significant figures. (Calculator)  	
7 x : y = 6 : 5 Work out the ratio (4x − 2y) : (6x + 6y) Give your answer in its simplest form.	
8 A circle has centre C(−5, −4) and passes through the point P(0, −1). Find an equation of the circle.	
9 ABC is a right-angled triangle with sides (x + 1) cm, (x) cm and (2x − 1) cm. The longest side is (2x − 1) cm. (a) Find the value of x. (b) Work out the area of the triangle. The diagram is not drawn accurately.  	
10 The curve C has equation $y = 2x^2 + 3x - 5$. The points A and B on C have x coordinates 1 and 5. The tangents to C at A and at B meet at the point T. Find the coordinates of T.	