Name: _____ 5-a-day Higher Plus

2nd September

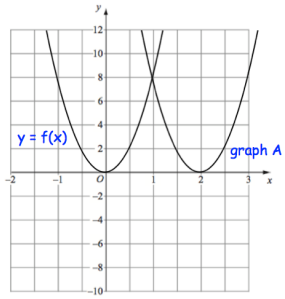
Corbettmaths

A wooden flagpole is 25 foot tall.
In a storm, the flagpole is broken and its top touches the ground 5 foot from the base.

Find the lengths of the segments of the flagpole.

Graph A is a translation of the graph $y = f(x)$

Write down the equation of graph A.



A shed has dimensions, in metres, of

$\text{height} = \sqrt{5}$, $\text{width} = \sqrt{6}$ and $\text{length} = \frac{9}{\sqrt{2}}$

Find the volume of the shed.
Give your answer in the form $a\sqrt{15}$, where a is an integer.

The circle $x^2 + y^2 = 25$ has tangents at the points A and B.

The point A has coordinates (0, 5)
The point B has coordinates (3, –4)

The tangents meet at the point P.

Work out the coordinates of the point P.