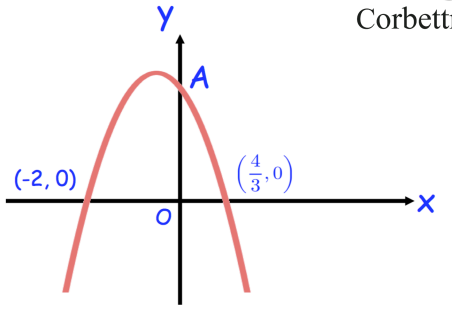
Name: _____ 5-a-day Further Maths

28th March

Corbettmaths

Here is the graph of
$y = a + bx - 3x^2$
Work out the coordinates of the point A.



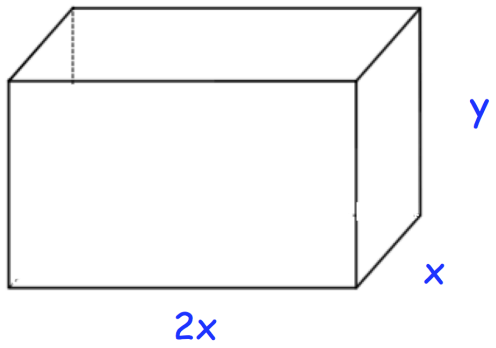
$A = 4x$ $B = 9x$

C is 125% more than A
D is 60% less than B

C is 162 greater than D

Work out the value of x

An open-topped tank in the shape of a cuboid is shown below.



The surface area of the cuboid is 300cm²

The volume of the cuboid is V

Show that $y = \frac{50}{x} - \frac{x}{3}$

Show that the volume of the tank is
$V = 100x - \frac{2}{3}x^3$

Use differentiation to find the value of x for which V is a maximum