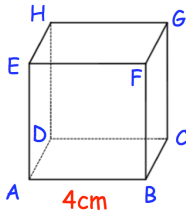


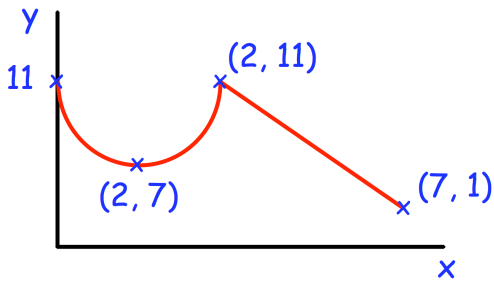
**2nd July**

Corbettmaths

Shown below is a cuboid.



Calculate the size of angle BDF

Work out the values of  $a$ ,  $b$ ,  $c$  and  $d$ .

$$f(x) = (x - a)^2 + b \quad \text{for } 0 \leq x < 2$$

$$= cx + d \quad \text{for } 2 \leq x \leq 7$$

A circle has centre  $C$  and equation

$$x^2 + y^2 + 16x + 4y - 10 = 0$$

Find the centre of the circle

Find the radius of the circle