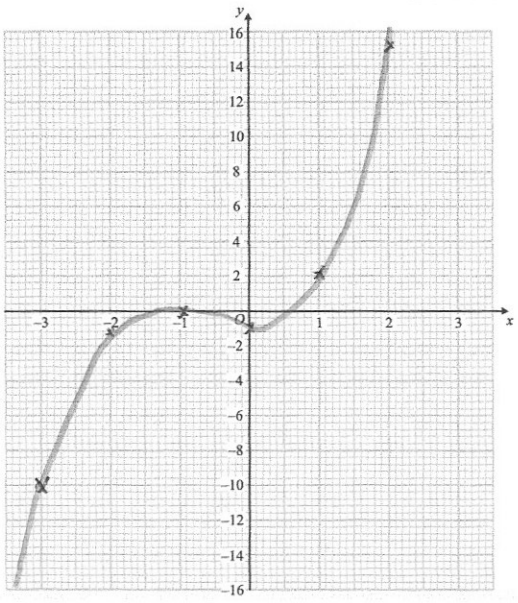
8th July **Higher 5-a-day**

Corbettmaths

Draw $y = x^3 + 2x^2 - 1$ on the grid below for values of x, $-3 \leq x \leq 2$

x	-3	-2	-1	0	1	2
y	-10	-1	0	-1	2	15



Find the value of $16^{-\frac{3}{4}}$

$\sqrt[4]{16} = 2$

$2^3 = 8$ $\frac{1}{8}$

The table shows a set of values for x and y.
y is directly proportional to the square root of x

x	25	
y	9	36

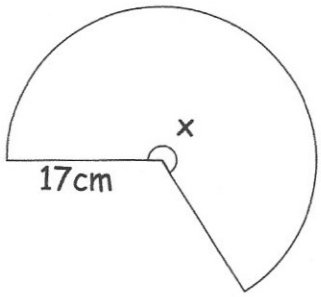
Complete the table.

$y \propto \sqrt{x}$ $y = 1.8\sqrt{x}$

$y = k\sqrt{x}$ $36 = 1.8\sqrt{x}$

$9 = k \times 5$ $\sqrt{x} = 20$

$k = 1.8$ $x = 400$



The area of the sector is 550cm²
Find x.

$\frac{x}{360} \times \pi \times 17^2 = 550$

$x = 218.08°$

Simplify fully

$$\sqrt{\frac{50\pi a^5}{2\pi a^3}}$$

$\sqrt{25a^2}$

$5a$