

Solve  $3x^2 - 7x + 4 = 0$ 

$$a = 3 \quad b = -7 \quad c = 4$$

$$x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a} = \frac{7 \pm \sqrt{49 - 48}}{6}$$

$$x = 1 \text{ or } x = \frac{4}{3}$$

or factorise

$$(3x - 4)(x - 1) = 0$$

$$x = \frac{4}{3} \text{ or } x = 1$$

$$\sqrt{192} = 2\sqrt{y}$$

Find y

$$\sqrt{4} \times \sqrt{y}$$

$$\sqrt{4y}$$

$$4y = 192$$

$$y = 48$$

48

A can of baked beans has a paper label wrapped around the outside. The can has a height of 11cm and radius of 4.5cm.

The label covers the entire height of the can.

The label has a 1cm overlap vertically so that it can be stuck together

Calculate the area of the label.



4.5cm

$$11\text{cm} \quad \pi \times 9 = 28.27\dots$$

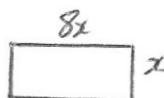
$$28.27\dots + 1 = 29.27\dots$$

$$29.27\dots \times 11 = 322.018\text{cm}^2$$

The length of a rectangular field is eight times its width.

The area of the field is  $1800\text{m}^2$

Find the perimeter of the field.



$$8x^2 = 1800$$

$$x^2 = 225$$

$$x = 15$$

$$120 + 120 + 15 + 15 = 270\text{m}$$