



1) Solve:

a)
$$x^2 = 9$$

$$x = \pm 3$$

b)
$$x^2 = 49$$

$$x = +7$$

c)
$$x^2 = 16$$

$$x = \pm 4$$

d)
$$x^2 = 144$$

e)
$$x^2 = 36$$

f)
$$x^2 = 256$$

d)
$$x^2 = 144$$
 x = \pm 12

$$x = +6$$

f)
$$x^2 = 256$$
 x = \pm 16

2) Solve:

a)
$$x^2 - 5 = 31$$
 x = +6

$$x = +6$$

b)
$$x^2 + 3 = 12$$
 x = + 3

$$x = \pm 3$$

c)
$$x^2 + 7 = 23$$
 x = \pm 4

$$x = +4$$

d)
$$x^2 - 2 = 79$$

e)
$$x^2 + 1 = 26$$

f)
$$x^2 - 7 = 93$$

e) $4x^2 + 5 = 69$ **x** = \pm **4**

$$x = \pm 9$$

$$x = \pm 5$$

$$x = \pm 10$$

3) Solve:

a)
$$4x^2 = 100$$
 x = \pm **5**

$$x = \pm 5$$

b)
$$4x^2 = 64$$

c)
$$5x^2 = 45$$

d)
$$2x^2 = 98$$

$$x = \pm 5$$

$$x = \pm 4$$
 f) $2x^2 - 12 = 60$ $x = \pm 6$

$$x = \pm 3$$
 g) $3x^2 + 9 = 84$ $x = \pm 5$

g)
$$3x^2 + 9 = 84$$

h)
$$2x^2 + 15 = 23$$
 x = \pm 2

$$x = \pm 5$$

$$x = \pm 2$$

4) Solve:

a)
$$\frac{x^2}{4} + 5 = 9$$

$$x = \pm 4$$

c)
$$\frac{x^2}{3} + 3 = 6$$

$$x = \pm 3$$

b)
$$\frac{x^2}{2} - 8 = 10$$

$$x = \pm 6$$

d)
$$\frac{x^2}{5} + 80 = 100$$

$$x = \pm 10$$

Exam question:

The triangle has two dimensions as shown in the diagram (units are in cm).

The area is 150 cm².

Find the value of x.



