



$$g(x) = \frac{2x - 9}{5}$$

$$y = \frac{2x - 9}{5}$$

Find

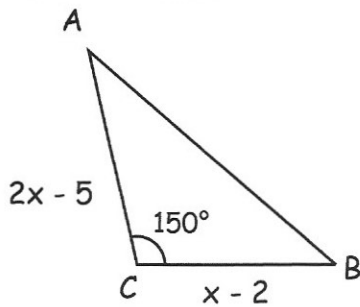
$$5y = 2x - 9$$

$g^{-1}(x)$

$$5y + 9 = 2x$$

$$x = \frac{5y + 9}{2}$$

$$g^{-1}(x) = \frac{5x + 9}{2}$$



Write an expression for the area of the triangle.

$$\frac{1}{2} (x-2)(2x-5) \sin 150$$

$$\sin 150 = \frac{1}{2}$$

$$\frac{1}{2} (x-2)(2x-5) \times \frac{1}{2}$$

$$\frac{1}{4} (x-2)(2x-5)$$

Given the area of the triangle is greater than  $16.5\text{cm}^2$ , show that

$$2x^2 - 9x - 56 > 0$$

$$\frac{1}{4} (x-2)(2x-5) > 16.5 \quad \times 4$$

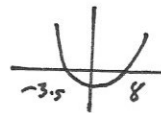
$$(x-2)(2x-5) > 66$$

$$2x^2 - 9x + 10 > 66$$

$$2x^2 - 9x - 56 > 0$$

Find the possible range of  $x$ .

$$(2x + 7)(x - 8)$$



$$x < -3.5 \quad x > 8$$

Shown is a sketch of the circle with equation  $x^2 + y^2 = 25$

$$r = 5$$

The circle is translated 3 squares downwards.

Sketch the circle and label the coordinates where the circle crosses both the x-axis and y-axis.

$$x^2 + 3^2 = 25$$

$$x^2 + 9 = 25$$

$$x^2 = 16$$

$$x = \pm 4$$

$$(4, 0) \quad (-4, 0)$$

