



Which number has no reciprocal?

0

Find the coordinates of the points where $y = 2x^2 - 7x + 3$ crosses each axis.

y-axis $x=0$ $(0, 3)$
 $y = 0 - 0 + 3 = 3$

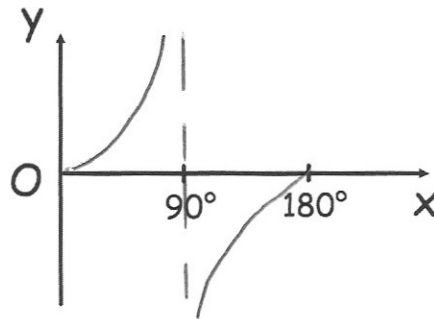
x-axis $y=0$ $2x^2 - 7x + 3 = 0$

$$(2x-1)(x-3) = 0$$

$$x = \frac{1}{2} \quad \text{or} \quad x = 3$$

$$\left(\frac{1}{2}, 0\right) \quad \text{and} \quad (3, 0)$$

Sketch $y = \tan x$ for $0^\circ \leq x \leq 180^\circ$



Solve the simultaneous equations

$$x^2 + y^2 = 9$$

$$y = x + 3$$

$$x^2 + (x+3)^2 = 9$$

$$x^2 + x^2 + 6x + 9 = 9$$

$$2x^2 + 6x = 0$$

$$x^2 + 3x = 0$$

$$x(x+3) = 0$$

$$\boxed{\begin{array}{l} x = 0 \quad \text{or} \quad x = -3 \\ y = 3 \quad \quad y = 0 \end{array}}$$

$$(0, 3), (-3, 0)$$

Given that $125^x = 25^{(x+5)}$

Find x

$$(5^3)^x = (5^2)^{x+5}$$

$$5^{3x} = 5^{2x+10}$$

$$3x = 2x + 10$$

$$x = 10$$