



Solve the simultaneous equations

$$y = x^2 - 1 \quad y = (5 - y)^2 - 1$$

$$x = 5 - y \quad y = 25 - 10y + y^2 - 1$$

$$y = y^2 - 10y + 24$$

$$0 = y^2 - 11y + 24$$

$$0 = (y - 3)(y - 8)$$

$$y = 3 \text{ or } y = 8$$

$$x = 2 \quad x = -3$$

$$x = 2 \text{ or } x = -3$$

$$y = 3 \quad y = 8$$

$$(2, 3) \text{ and } (-3, 8)$$

Work out

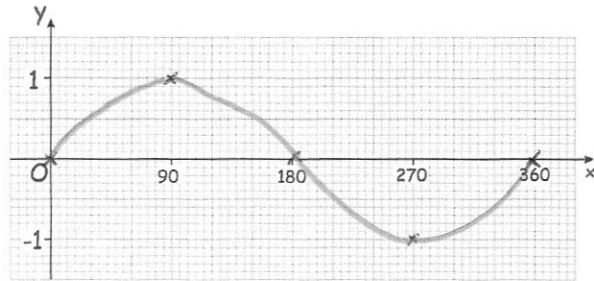
$$\sqrt{200} + \sqrt{50}$$

$$\sqrt{100} \times \sqrt{2} + \sqrt{25} \times \sqrt{2}$$

$$10\sqrt{2} + 5\sqrt{2}$$

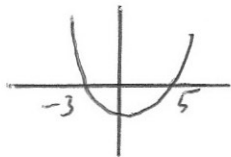
$$15\sqrt{2}$$

Sketch $y = \sin x$ for $0^\circ \leq x \leq 360^\circ$



Solve $x^2 - 2x - 15 > 0$

$$(x - 5)(x + 3)$$



$$x < -3 \text{ or } x > 5$$

Find the nth term of

10, 12, 16, 22, 30

$$2 \quad 4 \quad 6 \quad 8$$

$$2 \quad 2 \quad 2$$

$$2a = 2$$

$$a = 1$$

$$3 + b = 2$$

$$b = -1$$

$$a + b + c = 10$$

$$c = 10$$

$$n^2 - n + 10$$