

m8 = 4 days to go!

size of tile
 $50 \times 30 = 1500 \text{ cm}^2$

4 Tiles measure 50 cm by 30 cm.



Each tile costs £2.09

change to same units!

Estimate the cost of tiling a room which measures 4.18 m by 2.72 m.

$$\frac{120000}{1500} = 1200 \div 15 = 80 \text{ tiles}$$

418cm 272cm
 400cm 300cm
 $400 \times 300 = 120000 \text{ cm}^2$

$$80 \times £2 = £160$$

Answer £ 160 [4]

CRA B CLAW

Expand and simplify $(3 + \sqrt{8})(4 + \sqrt{2})$

Give your answer in the form $a + b\sqrt{2}$ where a and b are integers.

$$12 + 3\sqrt{2} + 4\sqrt{8} + \sqrt{8}\sqrt{2}$$

$$12 + 3\sqrt{2} + 4\sqrt{8} + \sqrt{16}$$

$$12 + 3\sqrt{2} + 8\sqrt{2} + 4$$

$$4\sqrt{8} \rightarrow 4\sqrt{4}\sqrt{2} = 4 \times 2\sqrt{2} = 8\sqrt{2}$$

$$\sqrt{16} = 4$$

$$\underline{16 + 11\sqrt{2}}$$

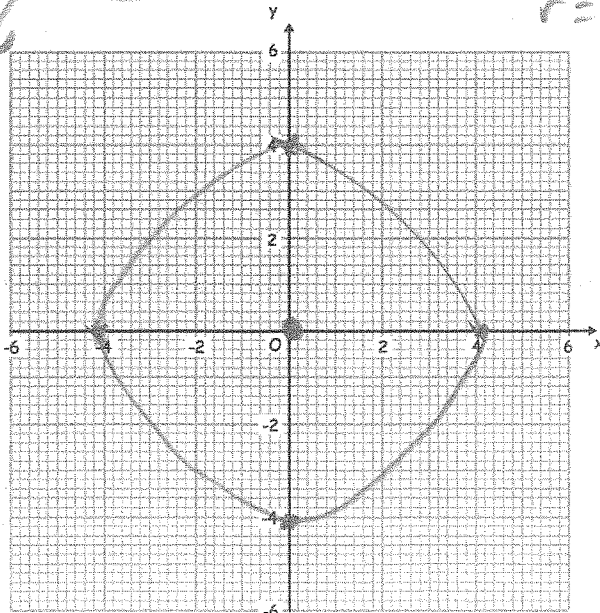
(4)

Draw the circle with equation $x^2 + y^2 = 16$

$$r^2 = 16$$

$$r = 4$$

Centre
 $(0, 0)$



(2)

$$32^{-4/5} \quad \text{inverse} = \frac{1}{32}$$

$$5 \sqrt{\frac{1}{32}} = \frac{1}{2}$$

$$\left(\frac{1}{2}\right)^4 = \frac{1}{16}$$

$$\frac{1}{16}$$

(2)

Z is directly proportion to \sqrt{x}

When $Z = 12$, $x = 36$

- (a) Express Z in terms of x
- (b) Work out the value of Z when $x = 121$
- (c) Work out the value of x when $Z = 18$

$$Z \propto \sqrt{x}$$

so

$$Z = k\sqrt{x}$$

$$12 = k \times \sqrt{36}$$

$$12 = 6k$$

$$2 = k$$

$$\boxed{Z = 2\sqrt{x}}$$

$$x=121 \quad Z = 2 \times \sqrt{121}$$

$$Z = 2 \times 11$$

$$\underline{Z = 22}$$

$$Z = 18$$

$$18 = 2 \times \sqrt{x}$$

$$9 = \sqrt{x}$$

$$\underline{81 = x}$$