

3.3 Answers

3.3.1 Solutions (3.2 Exercise)

Answer 1

- (i) Tick $\square$ y is directly proportional to square root of x
- (ii) 8
- (iii) $y = 40$
- (iv) $y = 160$
- (v) INCREASE "More is More"

Answer 2

- (i) Tick $\square$ y is inversely proportional to the square root of x .
- (ii) 24
- (iii) $y = 3$
- (iv) $y = 2.4$
- (v) DECREASE "More is Less"

Answer 3

- (i)
$$y = 15\sqrt{x}$$
- (ii) $y = 120$
- (iii) $y = 180$

Answer 4

- (i)
$$y = \frac{21}{\sqrt{x}}$$
- (ii) $y = 7$
- (iii) $y = 3$

Answer 5

- (i) $y = kx$
- (ii) $k = 2$
- (iii) $y = 2x$
- (iv) $y = 10$

Answer 6

- (i) $y = k\sqrt{x}$
- (ii) $k = 10$
- (iii) $y = 10\sqrt{x}$
- (iv) $y = 50$

Answer 7

- (i) $y = kx^2$
- (ii) $k = 4$
- (iii) $y = 4x^2$
- (iv) $y = 400$

Answer 8

- (i) Tick *directly*
- (ii) π

Answer 9**(i)**

$$y = \frac{k}{x}$$

(ii) $k = 15$ **(iii)**

$$y = \frac{15}{x}$$

(iv) $y = 1$ **Answer 10****(i)**

$$y = \frac{k}{\sqrt{x}}$$

(ii) $k = 36$ **(iii)**

$$y = \frac{36}{\sqrt{x}}$$

(iv) $y = 9$ **Answer 11****(i)** Tick *directly***(ii)** $c = 3 \times 10^8$ m/s c is the speed of light**Answer 12****(i)**

$$y = \frac{k}{x^2}$$

(ii) $k = 18$ **(iii)**

$$y = \frac{18}{x^2}$$

(iv) $y = 18$ **Answer 13****(i)** $C = 2 \pi r$ **(ii)** Formula for circumference of a circle**Answer 14****(i)****(ii)** Formula for area of a triangle

$$A = \frac{1}{2} b h$$