

8.2 Answers

Answer 1

- (i) TICK on y is inversely proportional to the square of x .
- (ii) 36
- (iii) 4
- (iv) 1
- (v) decrease

Answer 2

$$y = 7\sqrt{x}$$

Answer 3

$$m \propto \frac{1}{h^2}$$

Answer 4

$$p \propto \sqrt{g}$$

Answer 5

- (i) TICK on y is directly proportional to the cube of x
- (ii) 20
- (iii) 20
- (iv) 540
- (v) 20 000
- (vi) increase

Answer 6

- (i)

$$y = \frac{81}{x}$$

- (ii) 9
- (iii) 3
- (iv) TICK on MORE is LESS

Answer 7

- (i) TICK on A is directly proportional to b
 TICK on A is directly proportional to h
- (ii) $\frac{1}{2}$

Answer 8

- (i) $y = kx^2$
- (ii) 2
- (iii) $y = 2x^2$
- (iv) 450

Answer 9

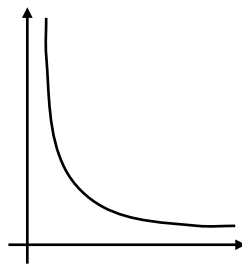
- (i) $P \propto I^2$
- (ii) 16
- (iii) $P = 16I^2$
- (iv) 1600

Answer 10

- (i) $T \propto \frac{1}{N}$
- (ii) 24
- (iii) $T = \frac{24}{N}$
- (iv)

N	1	2	3	4	6	8	12	24
T	24	12	8	6	4	3	2	1

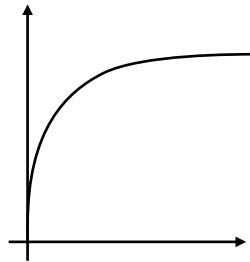
- (v)

**Answer 11**

- (a) $V = 2W^2$
- (b) £1800
- (c) 50 grammes

Answer 12

Measurements	1 by 2	1.5 by 3	2 by 4	2.5 by 5	3 by 6	3.5 by 7	4 by 8
Area	2	4.5	8	12.5	18	24.5	32
Perimeter	6	9	12	15	18	21	24

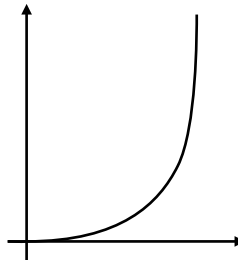


$$p = 3\sqrt{2} \sqrt{A} \quad \text{or} \quad P = 4.242 \sqrt{A}$$

127.3

Answer 13

- (i) TICK on A is directly proportional to r^2
- (ii) π
- (iii) 55.4 cm^2
- (iv) 5.64 cm

Answer 14**Answer 15**