

9.2 Answers

GCSE Mathematics Algebra, Rearranging Formulae

Answer 1

Divide the other side by 8

Answer 2

(i)

$$x = 4w + 7h^2$$

(iii)

$$x = 9\sqrt{f}$$

Answer 3

$$x = \frac{13 + s^2 - a}{k^2}$$

Answer 5

$$v = \frac{I + um}{m}$$

Answer 7

$$x = \frac{7 + y}{2}$$

Answer 9

$$x = \frac{p^2}{(17 + w)}$$

Answer 11

(a)

$$P = 2(n + 1) \quad \text{or} \quad P = 2n + 2$$

(b)

$$n = \frac{P}{2} - 1 \quad \text{or} \quad n = \frac{P - 2}{2}$$

Answer 12

$$x = \pm \sqrt{\frac{v - 3c^2}{11}}$$

(ii)

$$x = \frac{k}{15g}$$

(iv)

$$x = \frac{8v^2}{m + 2s}$$

Answer 4

$$x = \frac{1 - u^2 + 45y}{35}$$

Answer 6

$$x = \frac{3b - 11g}{5}$$

Answer 8

$$y = \frac{5x - 3}{2}$$

Answer 10

$$x = \frac{13h + 5y}{13}$$

Answer 13

$$y = \sqrt{\frac{n}{1 - a}}$$

(Told y is positive)

Answer 14

$$x = \frac{100y}{(P + 100)}$$

Answer 15

$$a = \frac{p^2}{b}$$

Answer 16

$$r = \sqrt{\frac{V}{\pi h}}$$

Answer 17

$$h = \frac{A - 2\pi r^2}{2\pi r}$$

$$\text{or } h = \frac{A}{2\pi r} - r$$

Answer 18**(a)**

$$L = 4.5$$

(b)

$$W = \frac{\frac{A}{2} - HL}{(L + H)} \quad \text{for example}$$

Answer 19

$$x = \frac{1 + y^2}{y^2 - 2}$$

Answer 20

$$q = (p + 5r)^2$$

Answer 21

$$R = \pm \sqrt{\frac{A}{\pi} + r^2}$$

This document is a part of a **Mathematics Community Outreach Project** initiated by Shrewsbury School

It may be freely duplicated and distributed, unaltered, for non-profit educational use

In October 2020, Shrewsbury School was voted “**Independent School of the Year 2020**”

© 2025 Number Wonder

Teachers may obtain detailed worked solutions to the exercises by email from MHHShrewsbury@Gmail.com