

### 3.2 Solutions (3.1 Drill)

#### GCSE Mathematics Algebra, Rearranging Formulae

##### Answer 1

Do the same to the whole of both sides of the equation

##### Answer 2

( i )

$$x = m + 4.5$$

( iii )

$$x = 8c$$

( ii )

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

( iv )

$$x = \frac{8}{11}$$

##### Answer 3

( i )  $\frac{x}{8}$

( ii )  $\frac{3x^2}{2w}$

( iii )  $\frac{4k}{m + 3n}$

( iv )  $\frac{1}{3}$

( v )  $\frac{1}{x}$

( vi )  $\frac{1}{5k + p}$

( vii )  $\frac{p + q}{7}$

( viii ) 7

( ix ) x

##### Answer 4

$$x = \frac{3k + 8n}{m}$$

##### Answer 5

$$x = \frac{z^2 + y + 8}{7}$$

##### Answer 6

$$x = \frac{11 - 5y}{15}$$

##### Answer 7

$$x = 20c - 55a$$

##### Answer 8

$$m = \frac{\sqrt{c} - v}{5}$$

##### Answer 9

( i )

$$x = \frac{v^2 + c}{4m}$$

( iii )

$$x = \frac{m + \sqrt{n}}{k^2 + 2}$$

( ii )

$$x = 8\sqrt{p} f$$

( iv )

$$x = \frac{1}{a + b - 5}$$

**Answer 10**

$$w = m^2 + 4pq$$

**Answer 11**

$$x = \frac{5}{7k - 3g}$$

**Answer 12**

$$x = \frac{7f}{h + 13}$$

**Answer 13**

$$x = \frac{7b}{a} - 5pq$$

**Answer 14**

$$x = \frac{1 + m}{u + 42}$$

**Answer 15**

$$x = \frac{4}{g - 1 - 3h} - 3z^2$$

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Teachers may obtain detailed worked solutions to the exercises by email from [MHHShrewsbury@Gmail.com](mailto:MHHShrewsbury@Gmail.com)