

Name : \_\_\_\_\_

## Rearranging Equations

Sheet 1

1)  $xy - 7 = 2y$

$x =$  \_\_\_\_\_

$y =$  \_\_\_\_\_

2)  $\frac{\frac{v}{9} - 8}{\frac{w}{3}} = 2$

$v =$  \_\_\_\_\_

$w =$  \_\_\_\_\_

3)  $\sqrt{\frac{6}{a} + \frac{1}{b}} = \sqrt{\frac{d}{c}}$

$a =$  \_\_\_\_\_

$c =$  \_\_\_\_\_

4)  $-h + 5g = 20m - k$

$k =$  \_\_\_\_\_

$h =$  \_\_\_\_\_

5)  $7u - 2 = \frac{3\sqrt{s}}{4g}$

$s =$  \_\_\_\_\_

$u =$  \_\_\_\_\_

6)  $\frac{b^2}{2} - \frac{t^2}{8} = 1$

$b =$  \_\_\_\_\_

$t =$  \_\_\_\_\_

7)  $-\frac{4zm}{5} = \frac{n}{2}$

$n =$  \_\_\_\_\_

$z =$  \_\_\_\_\_

8)  $9p(q + 2r) = 2pq + s$

$p =$  \_\_\_\_\_

$r =$  \_\_\_\_\_

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## Answer key

Sheet 1

### Rearranging Equations

1)  $xy - 7 = 2y$

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

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

2)  $\frac{\frac{v}{9} - 8}{\frac{w}{3}} = 2$

$$v = 6w + 72$$

$$w = \frac{v - 72}{6}$$

3)  $\sqrt{\frac{6}{a} + \frac{1}{b}} = \sqrt{\frac{d}{c}}$

$$a = \frac{6bc}{bd - c}$$

$$c = \frac{abd}{6b + a}$$

4)  $-h + 5g = 20m - k$

$$k = 20m + h - 5g$$

$$h = 5g - 20m + k$$

5)  $7u - 2 = \frac{3\sqrt{s}}{4g}$

$$s = \left( \frac{4g(7u - 2)}{3} \right)^2$$

$$u = \frac{3\sqrt{s} + 8g}{28g}$$

6)  $\frac{b^2}{2} - \frac{t^2}{8} = 1$

$$b = \pm \frac{1}{2} \sqrt{t^2 + 8}$$

$$t = \pm 2 \sqrt{b^2 - 2}$$

7)  $-\frac{4zm}{5} = \frac{n}{2}$

$$n = -\frac{8zm}{5}$$

$$z = -\frac{5n}{8m}$$

8)  $9p(q + 2r) = 2pq + s$

$$p = \frac{s}{7q + 18r}$$

$$r = \frac{s - 7pq}{18p}$$