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SELF EXERCISE 8

1. $m = 30 + 2P, P$

$$\frac{m-30}{2} = \frac{2P}{2}$$

$$P = \frac{m-30}{2} = \frac{m}{2} - \frac{30}{2}$$

$$= \frac{m}{2} - 15$$

2. $a = 3c - 4, c$

$$\frac{a+4}{3} = \frac{3c}{3}$$

$$c = \frac{a+4}{3}$$

3. $P = 2a + 2b, b$

$$P - 2a = 2b$$

$$\frac{P-2a}{2} = \frac{2b}{2}$$

$$b = \frac{P-2a}{2}$$

4. $f = 3c - 4, c$

$$\frac{f+4}{3} = \frac{3c}{3}$$

$$c = \frac{f+4}{3}$$

5. $u = 7t + 30, t$

$$u - 30 = 7t$$

$$\frac{u-30}{7} = \frac{7t}{7}$$

$$t = \frac{u-30}{7}$$

$$u = 7t + 30$$

$$u - 30 = 7t + 30 - 30$$

6. $x = 3y + 2, y$

$$x - 2 = 3y$$

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

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

7. $v = 4 + 5t, t$

$$v - 4 = 5t$$

$$\frac{v-4}{5} = \frac{5t}{5}$$

$$t = \frac{v-4}{5}$$

8. $y = \frac{1}{2}x + 1, x$

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

$$2 \times (y-1) = \frac{1}{2} \times 2$$

$$(y-1) \times 2 = x$$

$$x = 2y - 2$$

9. $s = \frac{9}{4} + 8u, u$

$$4(s - \frac{9}{4}) = \frac{9}{4} \times 4$$

$$4s - 9 = 9$$

$$u = \frac{4s - 9 - 9}{8}$$

10. $D = ut + kt^2, u$

$$\frac{D - kt^2}{t} = \frac{ut}{t}$$

$$u = \frac{D - kt^2}{t}$$

$$11. v^2 = u^2 + 2as, s$$

$$v^2 - u^2 = 2as$$

$$\frac{v^2 - u^2}{2a} = \frac{2as}{2a}$$

$$s = \frac{v^2 - u^2}{2a}$$

✓

$$12. 2(t-5) = y, t$$

$$2t - 10 = y$$

$$2t - 10 = y$$

$$\frac{2t}{2} = \frac{y+10}{2}$$

$$t = \frac{y+10}{2}$$

✓

$$13. m = 5n - 21, n$$

$$m+21 = 5n$$

$$\frac{m+21}{5} = \frac{5n}{5}$$

$$n = \frac{m+21}{5}$$

$$14. p = 2q + 10, q$$

$$\frac{p-10}{2} = \frac{2q}{2}$$

$$q = \frac{p-10}{2} = \frac{p}{2} - \frac{10}{2} = \frac{p}{2} - 5$$

$$15. d = \sqrt{\frac{3h}{2}}$$

$$2 \times \frac{d^2}{2} = 3h \times 2$$

$$\frac{2d^2}{2} = \frac{3h \times 2}{2}$$