

Name: _____ Date: _____

Rearranging Formulas

Solve each for the indicated variable.

<p>1) $d = rt$ for r</p> <p style="text-align: right; margin-top: 100px;">$R = \frac{d}{t}$</p>	<p>2) $R = \frac{CS}{t}$ for C</p> <p style="text-align: center;">$\frac{Rd}{S} = \frac{CS}{S}$</p> <p style="text-align: right; margin-top: 100px;">$C = \frac{Rd}{S}$</p>	<p>3) $T = m - n$ for n</p> <p style="text-align: right; margin-top: 100px;">$n = -T + m$ OR $n = m - T$</p>
<p>4) $V = \frac{lw}{lh}$ for w</p> <p style="text-align: right; margin-top: 100px;">$w = \frac{V}{lh}$</p>	<p>5) $ax + by = c$ for y</p> <p style="text-align: center; margin-top: 100px;">$y = \frac{c - ax}{b}$ OR $y = \frac{c}{b} - \frac{ax}{b}$</p>	<p>6) $S = 2(lw + lh + wh)$ for w</p> <p style="text-align: center; margin-top: 10px;">$S = 2lw + 2lh + 2wh$</p> <p style="text-align: center; margin-top: 10px;">$-2lh$ $-2lh$</p> <p style="text-align: center; margin-top: 10px;">$2lw + 2wh = S - 2lh$</p> <p style="text-align: center; margin-top: 10px;">$\frac{w(2l + 2h)}{2l + 2h} = \frac{S - 2lh}{2l + 2h}$</p> <p style="text-align: right; margin-top: 10px;">$w = \frac{S - 2lh}{2l + 2h}$</p>
<p>7) $d = \frac{c}{\pi}$ for π</p> <p style="text-align: right; margin-top: 100px;">$\pi = \frac{c}{d}$</p>	<p>8) $A = p(1 + rt)$ for t</p> <p style="text-align: center; margin-top: 10px;">$A = p + prt$</p> <p style="text-align: center; margin-top: 10px;">$-p$ $-p$</p> <p style="text-align: center; margin-top: 10px;">$\frac{prt}{p \cancel{r}} = \frac{A - p}{p \cancel{r}}$</p> <p style="text-align: right; margin-top: 100px;">$t = \frac{A - p}{pr}$</p>	<p>9) $ax + b = c$ for a</p> <p style="text-align: right; margin-top: 100px;">$a = \frac{c - b}{x}$</p>
<p>10) $A = 2\pi r^2 + 2\pi rh$ for h</p> <p style="text-align: center; margin-top: 10px;">$-2\pi r^2$ $-2\pi r^2$</p> <p style="text-align: center; margin-top: 10px;">$\frac{2\pi rh}{2\pi r} = \frac{A - 2\pi r^2}{2\pi r}$</p> <p style="text-align: right; margin-top: 100px;">$h = \frac{A - 2\pi r^2}{2\pi r}$</p>	<p>11) $R = \frac{l + 3w}{2}$ for w</p> <p style="text-align: right; margin-top: 100px;">$w = \frac{2R - l}{3}$</p>	<p>12) $9C = 5(F - 32)$ for F</p> <p style="text-align: center; margin-top: 10px;">$9C$ $5(F - 32)$</p> <p style="text-align: center; margin-top: 10px;">$9C = 5F - 160$</p> <p style="text-align: center; margin-top: 10px;">$+160$ $+160$</p> <p style="text-align: center; margin-top: 10px;">$\frac{5F}{5} = \frac{9C + 160}{5}$</p> <p style="text-align: right; margin-top: 100px;">$F = \frac{9C + 160}{5}$</p>

Rearranging Formulas

Solve each for the indicated variable.

13) $H = \frac{62.4NS}{33,000}$ for N

$$N = \frac{33,000H}{62.4S}$$

14) $K = \frac{1}{2}mv^2$ for m

$$\frac{2K}{v^2} = \frac{mv^2}{v^2}$$

$$m = \frac{2K}{v^2}$$

15) $S = R - rR$ for R

$$R = \frac{S}{1-r}$$

16) $A = \frac{1}{2}nal$ for n

$$\frac{2A}{al} = \frac{nal}{al}$$

$$n = \frac{2A}{al}$$

17) $F = \frac{gm_1m_2}{d^2}$ for g

$$g = \frac{Fd^2}{m_1m_2}$$

18) $A = \frac{1}{2}bh$ for b

$$\frac{2A}{h} = \frac{bh}{h}$$

$$b = \frac{2A}{h}$$

19) $h = vt - 16t^2$ for v

$$v = \frac{h+16t^2}{t}$$

20) $A = S(1 - DN)$ for N

$$\begin{aligned} A &= S - SDN \\ -S & \quad -S \\ -SDN &= \frac{A-S}{-SD} \end{aligned}$$

$$N = \frac{A-S}{-SD} \text{ OR } N = \frac{S-A}{SD}$$

21) $E = IR$ for I

$$I = \frac{E}{R}$$

22) $F = \frac{lt}{a}$ for l

$$\frac{Fd}{t} = \frac{lt}{t}$$

$$l = \frac{Fd}{t}$$

23) $P = \frac{144p}{y}$ for p

$$p = \frac{Py}{144}$$

24) $P = \frac{d}{a} + \frac{b}{r} + \frac{c}{c}$ for b

$$b = P - a - c$$