

Practice

1. Solve  $d = rt$  for  $r$

$$1. \frac{d}{t} = \frac{rt}{t}$$

$$\boxed{r = \frac{d}{t}}$$

2. Solve  $P = \frac{144p}{y}$  for  $p$

$$2. P = \frac{144p}{y} \cdot y$$

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

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

3. Solve  $R = \frac{cs}{d}$  for  $C$

$$3. R = \frac{cs}{d} \cdot d$$

$$\frac{dR}{s} = \frac{cs}{s}$$

$$\boxed{c = \frac{dR}{s}}$$

4. Solve  $P = a + b + c$  for  $b$

$$4. P = a + b + c$$

$$-a \quad -a$$

$$P - a = b + c$$

$$-c \quad -c$$

$$P - a - c = b$$

$$\boxed{b = P - a - c}$$

5. Solve  $T = m - n$  for  $n$

$$5. T = m - n$$

$$-m \quad -m$$

$$\frac{T - m}{-1} = \frac{-n}{-1}$$

$$\boxed{n = -T + m}$$

6. Solve  $A = \frac{a+b}{2}$  for  $b$

$$6. A = \frac{a+b}{2}$$

$$2 \cdot \frac{a+b}{2} = 2 \cdot A$$

$$2A = a + b$$

$$-a \quad -a$$

$$\boxed{b = 2A - a}$$

7. Solve  $V = lwh$  for  $w$

$$7. \frac{V}{lh} = \frac{lwh}{lh}$$

$$w = \frac{V}{lh}$$

8. Solve  $m = \frac{y_2 - y_1}{x_2 - x_1}$  for  $y_2$

$$8. m = \frac{y_2 - y_1}{x_2 - x_1} \cdot (x_2 - x_1)$$

$$(x_2 - x_1) \cdot m = \frac{y_2 - y_1}{x_2 - x_1} \cdot (x_2 - x_1)$$

$$m(x_2 - x_1) = y_2 - y_1$$

$$+ y_1 \quad + y_1$$

$$\boxed{y_2 = m(x_2 - x_1) + y_1}$$

9. Solve  $ax + by = c$  for  $c$

$$9. ax + by = c$$

$$-ax \quad -ax$$

$$\frac{by}{b} = \frac{c - ax}{b}$$

$$y = \frac{c - ax}{b}$$

10. Solve  $S = 2(lw + lh + wh)$  for  $w$

11. Solve  $P = 2(l + w)$  for  $l$

12. Solve  $d = \frac{c}{\pi}$  for  $\pi$

13. Solve  $\frac{1}{f} = \frac{1}{a} + \frac{1}{b}$  for  $f$

14. Solve  $A = p(1 + rt)$  for  $t$

15. Solve  $I = prt$  for  $r$

16. Solve  $ax + b = c$  for  $a$

17. Solve  $S = 2\pi rh$  for  $h$

18. Solve  $A = 2\pi r^2 + 2\pi rh$  for  $h$

19. Solve  $y - y_1 = m(x - x_1)$  for  $x$

20. Solve  $R = \frac{l+3w}{2}$  for  $w$

21. Solve  $ax + by + c = 0$  for  $y$

22. Solve  $C = \frac{5}{9}(F - 32)$  for  $F$

$$20. \frac{S}{2} = 2(lw + lh + wh)$$

$$\frac{S}{2} = lw + lh + wh$$

$$-lw \quad -lh$$

$$\frac{S}{2} - lw - lh = wh$$

$$\frac{S}{2} - lw - lh = \frac{wh}{h}$$

$$\boxed{w = \frac{\frac{S}{2} - lw - lh}{h}}$$

$$10. A = \frac{a+b+c+d}{4}$$

$$4 \cdot \frac{a+b+c+d}{4} = 4 \cdot A$$

$$4A = a + b + c + d$$

$$-a \quad -b \quad -c \quad -d$$

$$c = 4A - a - b - d$$

$$12. P = 2l + 2w$$

$$-2w \quad -2w$$

$$2l = P - 2w$$

$$\frac{2l}{2} = \frac{P - 2w}{2}$$