Literal Equation Practice

Name: Key

Directions: Solve the equations for the stated variable.

1. $V = Bh$ for h

$\frac{V}{h} = \frac{Bh}{h}$

$B = \frac{V}{h}$

2. $P = RB$ for B

$\frac{P}{R} = \frac{RB}{R}$

$B = \frac{P}{R}$

3. $C = 2\pi r$ for r

$\frac{C}{2\pi} = \frac{2\pi r}{2\pi}$

$r = \frac{C}{2\pi}$

4. $e = mc^2$ for m

$\frac{e}{c^2} = \frac{mc^2}{c^2}$

$m = \frac{e}{c^2}$

5. $V = LWH$ for H

$\frac{V}{LW} = \frac{LWH}{LW}$

$H = \frac{V}{LW}$

6. $I = prt$ for r

$\frac{I}{pt} = \frac{prt}{pt}$

$r = \frac{I}{pt}$

7. $V = \pi r^2 h$ for h

$\frac{V}{\pi r^2} = \frac{\pi r^2 h}{\pi r^2}$

$h = \frac{V}{\pi r^2}$

8. $S = 2\pi rh$ for r

$\frac{S}{2\pi h} = \frac{2\pi rh}{2\pi h}$

$r = \frac{S}{2\pi h}$

9. $V = \frac{1}{3}Bh$ for B

$3V = Bh$

$\frac{3V}{h} = \frac{Bh}{h}$

$B = \frac{3V}{h}$

10. $V = \frac{1}{3}\pi r^2 h$ for h

$3V = \pi r^2 h$

$\frac{3V}{\pi r^2} = \frac{\pi r^2 h}{\pi r^2}$

$h = \frac{3V}{\pi r^2}$

11. $V = \frac{KT}{P}$ for T

$PV = KT$

$\frac{PV}{K} = \frac{KT}{K}$

$T = \frac{PV}{K}$

12. $Ax + b = 0$ for x

$-b \quad -b$

$Ax = -b$

$\frac{Ax}{A} = \frac{-b}{A}$

$x = \frac{-b}{A}$

13. $y = mx + b$ for x

$-b \quad -b$

$\frac{y-b}{m} = \frac{mx}{m}$

$\boxed{x = \frac{y-b}{m}}$

14. $P = 2L + 2W$ for l

$-2w \quad -2w$

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

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

15. $Ax + by = c$ for y

$-Ax \quad -Ax$

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

$\boxed{y = \frac{c-Ax}{b}}$

16. $D = \frac{C-S}{n}$ for C

$Dn = C - S$

$+S \quad +S$

$\boxed{C = Dn + S}$

17. $D = \frac{R(100-x)}{100}$ for R

$\frac{1000}{100-x} = \frac{R(100-x)}{100-x}$

$\boxed{R = \frac{1000}{100-x}}$

18. $R = C(1 + r)$ for r

$\frac{R}{C} = \frac{C}{C}(1 + r)$

$\frac{R}{C} = 1 + r$

$-1 \quad -1$

$\boxed{r = \frac{R}{C} - 1}$

19. $A = P(1 + rt)$ for t

$\frac{A}{P} = \frac{P}{P}(1 + rt)$

$\frac{A}{P} = 1 + rt$

$-1 \quad -1$

$\frac{A}{P} - 1 = rt$

$\frac{A}{P} - 1 = \frac{rt}{r}$

$\boxed{t = \frac{\frac{A}{P} - 1}{r}}$

20. $A = \frac{1}{2}h(B + b)$ for b

$\frac{2A}{h} = \frac{h(B+b)}{h}$

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

$-B \quad -B$

$\boxed{b = \frac{2A}{h} - B}$

21. $L = a + d(n - 1)$ for n

$-a \quad -a$

$L - a = d(n-1)$

$\frac{L-a}{d} = \frac{d(n-1)}{d}$

$\frac{L-a}{d} = n - 1$

$+1 \quad +1$

$\boxed{n = \frac{L-a}{d} + 1}$

22. $F = \frac{9}{5}C + 32$ for C

$-32 \quad -32$

$\frac{5}{9}(F - 32) = \frac{5}{9} \cdot \frac{9}{5}C$

$\boxed{C = \frac{5}{9}(F - 32)}$

23. $C = \frac{5}{9}F + 32 \rightarrow C = \frac{5}{9}(F - 32)$

$\frac{9}{5}C = F - 32$

$+32 \quad +32$

$\boxed{F = \frac{9}{5}C + 32}$

24. $P = \frac{1.2W}{H^2}$ for W

$H^2P = 1.2W$

$\frac{H^2P}{1.2} = \frac{1.2W}{1.2}$

$\boxed{W = \frac{H^2P}{1.2}}$

25. $4x + 2y = 12$ for y

$-4x \quad -4x$

$\frac{2y}{2} = \frac{-4x}{2} + \frac{12}{2}$

$\boxed{y = -2x + 6}$

26. $3x - 6y = 18$ for y

$-3x \quad -3x$

$\frac{-6y}{-6} = \frac{-3x}{-6} + \frac{18}{-6}$

$\boxed{y = \frac{1}{2}x - 3}$

27. $-5x + 2y = 16$ for y

$+5x \quad +5x$

$\frac{2y}{2} = \frac{5x}{2} + \frac{16}{2}$

$\boxed{y = \frac{5}{2}x + 8}$