

## Literal Equations

Solve each equation for the indicated variable.

1)  $g = 6x$ , for  $x$

2)  $u = 2x - 2$ , for  $x$

3)  $z = m - x$ , for  $x$

4)  $g = ca$ , for  $a$

5)  $u = x - k$ , for  $x$

6)  $g = c + x$ , for  $x$

7)  $u = \frac{k}{a}$ , for  $a$

8)  $g = xc$ , for  $x$

9)  $12am = 4$ , for  $a$

10)  $-3x + 2c = -3$ , for  $x$

11)  $am = n + p$ , for  $a$

12)  $u = \frac{ak}{b}$ , for  $a$

13)  $a - c = d - r$ , for  $a$

14)  $xm = np$ , for  $x$

$$15) z = b + \frac{m}{a}, \text{ for } a$$

$$16) g = x - c + y, \text{ for } x$$

$$17) g = b - ca, \text{ for } a$$

$$18) g = ca - b, \text{ for } a$$

$$19) 2x + 4 = xg, \text{ for } x$$

$$20) g = \frac{1 + 2a}{a}, \text{ for } a$$

$$21) g = \frac{x - c}{x}, \text{ for } x$$

$$22) xm = x + z, \text{ for } x$$

$$23) u + ka = ba, \text{ for } a$$

$$24) u = kx + yx, \text{ for } x$$

$$25) u = 3b - 2a + 2, \text{ for } a$$

$$26) z = 9a - 9 - 3b, \text{ for } a$$

$$27) g = 4ca - 3ba, \text{ for } a$$

$$28) -3a - 3 = -2n + 3p, \text{ for } a$$

$$29) 4x = -4r + 2d, \text{ for } x$$

$$30) u = \frac{-2a - 3}{ka}, \text{ for } a$$

## Literal Equations

**Solve each equation for the indicated variable.**

1)  $g = 6x$ , for  $x$

$$x = \frac{g}{6}$$

2)  $u = 2x - 2$ , for  $x$

$$x = \frac{u + 2}{2}$$

3)  $z = m - x$ , for  $x$

$$x = -z + m$$

4)  $g = ca$ , for  $a$

$$a = \frac{g}{c}$$

5)  $u = x - k$ , for  $x$

$$x = u + k$$

6)  $g = c + x$ , for  $x$

$$x = g - c$$

7)  $u = \frac{k}{a}$ , for  $a$

$$a = \frac{k}{u}$$

8)  $g = xc$ , for  $x$

$$x = \frac{g}{c}$$

9)  $12am = 4$ , for  $a$

$$a = \frac{1}{3m}$$

10)  $-3x + 2c = -3$ , for  $x$

$$x = \frac{2c + 3}{3}$$

11)  $am = n + p$ , for  $a$

$$a = \frac{n + p}{m}$$

12)  $u = \frac{ak}{b}$ , for  $a$

$$a = \frac{ub}{k}$$

13)  $a - c = d - r$ , for  $a$

$$a = c + d - r$$

14)  $xm = np$ , for  $x$

$$x = \frac{np}{m}$$

$$15) z = b + \frac{m}{a}, \text{ for } a$$

$$a = \frac{m}{z - b}$$

$$17) g = b - ca, \text{ for } a$$

$$a = \frac{-g + b}{c}$$

$$19) 2x + 4 = xg, \text{ for } x$$

$$x = -\frac{4}{2 - g}$$

$$21) g = \frac{x - c}{x}, \text{ for } x$$

$$x = -\frac{c}{g - 1}$$

$$23) u + ka = ba, \text{ for } a$$

$$a = -\frac{u}{k - b}$$

$$25) u = 3b - 2a + 2, \text{ for } a$$

$$a = \frac{-u + 3b + 2}{2}$$

$$27) g = 4ca - 3ba, \text{ for } a$$

$$a = -\frac{g}{-4c + 3b}$$

$$29) 4x = -4r + 2d, \text{ for } x$$

$$x = \frac{-2r + d}{2}$$

$$16) g = x - c + y, \text{ for } x$$

$$x = g + c - y$$

$$18) g = ca - b, \text{ for } a$$

$$a = \frac{g + b}{c}$$

$$20) g = \frac{1 + 2a}{a}, \text{ for } a$$

$$a = \frac{1}{g - 2}$$

$$22) xm = x + z, \text{ for } x$$

$$x = \frac{z}{m - 1}$$

$$24) u = kx + yx, \text{ for } x$$

$$x = -\frac{u}{-k - y}$$

$$26) z = 9a - 9 - 3b, \text{ for } a$$

$$a = \frac{z + 9 + 3b}{9}$$

$$28) -3a - 3 = -2n + 3p, \text{ for } a$$

$$a = \frac{-3 + 2n - 3p}{3}$$

$$30) u = \frac{-2a - 3}{ka}, \text{ for } a$$

$$a = -\frac{3}{uk + 2}$$