

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

$$x = g + c - y$$

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

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

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

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

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

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

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

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

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

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

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

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

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

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