Rewriting Literal Equations

MATH MONKS

Rewrite each equation to make the given variable the subject.

1. $2x = \frac{1}{y}(3 + y)$, for y

2. $A = \frac{1}{2}h(b_1 + b_2)$, for h

3. $c = \frac{ab + 5}{4}$, for b

4. $y - 3 = \frac{2}{3}(x + 6)$, for x

5. $T = 2\pi\sqrt{\frac{L}{g}}$, for L

6. $F = \frac{mc^2}{r}$, for r

7. $P + Prt = I$, for P

8. $n = \frac{x + z - 1}{xz}$, for x

Rewriting Literal Equations

MATH MONKS

Answers

1. $2x = \frac{1}{y}(3 + y)$, for y

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

2. $A = \frac{1}{2}h(b_1 + b_2)$, for h

$h = \frac{2A}{b_1 + b_2}$

3. $c = \frac{ab + 5}{4}$, for b

$b = \frac{4c - 5}{a}$

4. $y - 3 = \frac{2}{3}(x + 6)$, for x

$x = \frac{3}{2}(y - 7)$

5. $T = 2\pi\sqrt{\frac{L}{g}}$, for L

$L = g\left(\frac{T}{2\pi}\right)^2$

6. $F = \frac{mc^2}{r}$, for r

$r = \frac{mc^2}{F}$

7. $P + Prt = I$, for P

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

8. $n = \frac{x + z - 1}{xz}$, for x

$x = \frac{z - 1}{(nz - 1)}$