Solving Literal Equations and Formulas 1.4

Overview of problems

Example Set: A

Solve the following equation for the given variable:

1. $F = ma$ solve for a
2. $A = lw$ solve for l
3. $P = R - C$ solve for R
4. $P = 2w + 2l$ solve for l

Example Set: B

Solve the following equation for the given variable:

1. $V = \pi r^2 h$ solve for h
2. $L = a + (n-1)d$ solve for n
3. $A = \frac{1}{2}h(b_1 + b_2)$ solve for b_1

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Overview of problems

Example Set: C

Solve the following equation for the given variable:

1. $S = \frac{rL-a}{r-1}$ solve for r

2. $y = mx + b$ solve for m

Example Set: D

1. Given Albert Einstein's famous formula for the Theory of Relativity, rewrite the equation in terms of m and then in terms of c.

$$E = mc^2$$

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Overview of problems

*Example Set: A -**ANSWER KEY***

Solve the following equation for the given variable:

1. $F = ma$ solve for a $a = \frac{F}{m}$

2. $A = lw$ solve for l $l = \frac{A}{w}$

3. $P = R - C$ solve for R $R = P + C$

4. $P = 2w + 2l$ solve for l $L = \frac{P-2w}{2}$

*Example Set: B- **ANSWER KEY***

Solve the following equation for the given variable:

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

2. $L = a + (n-1)d$ solve for n $n = \frac{L-a+d}{d}$

3. $A = \frac{1}{2}h(b_1 + b_2)$ solve for b_1 $b_1 = \frac{2A-hb_2}{h}$

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Overview of problems

*Example Set: C-**ANSWER KEY***

Solve the following equation for the given variable:

1. $S = \frac{rL-a}{r-1}$ solve for r $r = \frac{s-a}{s-l}$

2. $y = mx + b$ solve for m $m = \frac{y-b}{x}$

*Example Set: D-**ANSWER KEY***

1. Given Albert Einstein's famous formula for the Theory of Relativity, rewrite the equation in terms of m and then in terms of c.

$$E = mc^2$$

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

$$C = \sqrt{\frac{E}{m}}$$

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