1.4 - Rewriting Equations and Formulas

Solve each equation for $y$.

1) $y - 5 = -15$

2) $2y + 4 = 4y - 14$

Solve each literal equation for $y$.

3) $y - x = 1$

4) $2y + x = -8$

5) $\frac{2}{3}x + y = 3$

6) $16 = 4x + 8y$

7) $2y - 3x = y + 6$

8) $3x + \frac{1}{5}y = 7$
Solve each *literal equation* for the given variable.

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<td>9) ( d = rt ) (solve for ( t ))</td>
<td>10) ( r - c = p ) (solve for ( r ))</td>
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<tr>
<td>11) ( V = Bh ) (solve for ( h ))</td>
<td>12) ( g = \frac{1}{2}(w + 40) ) (solve for ( w ))</td>
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<tr>
<td>13) ( P = 2W + 2L ) (solve for ( L ))</td>
<td>14) ( y = mx + b ) (solve for ( m ))</td>
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15) To find an amount of income you use the formula: \( P = I - E \). Where \( P \) represents the amount of profit, \( I \) represents the Income earned, and \( E \) represents Expenses paid by the company.

   a) Solve the formula for \( I \)

   b) If a company’s expenses for a month are $35,000 and they earn a profit of $101,550 what was the company’s total amount of income?

   c) Why was it helpful to solve for \( I \) first when solving problem “b”?