Simplify each expression. When you simplify a *numerical expression*, simplify within parentheses first. Then do all multiplications and divisions from left to right followed by all additions and subtractions from left to right.

Example
$6.3 + 0.4(2.7) - (6.3 - 2.7 + 1)$
$= 6.3 + 0.4(2.7) - 4.6$ Simplify within parentheses first.
$= 6.3 + 1.08 - 4.6$ Multiply before adding and subtracting.
$= 7.38 - 4.60$ Add and subtract from left to right.
$= 2.78$

1. $5.1 + (11.4 - 6)$ **2.** $9.7 - (12.5 - 10)$

3. $3 \cdot 4.2 - 0.1 \cdot 8$ **4.** $0.06 \cdot 850$

5. $0.06 \cdot 850 + 0.45 \cdot 730$ **6.** $0.765 \cdot 5760 + 0.145 \cdot 13{,}500$

Each of the following *algebraic expressions* represents the product of 7 and a number h.

$7h \qquad 7 \cdot h \qquad 7(h) \qquad (7)(h)$

Evaluate an expression by replacing the variable by a number. Then simplify. Evaluate each expression for $h = 6.7$ or $x = 8.6$.

Example
$6.2 \div 2 + 8h$
$= 6.2 \div 2 + 8(6.7)$ Substitute 6.7 for h.
$= 3.1 + 53.6$ Divide and multiply first, then add.
$= 56.7$

7. $x - 3.6$ **8.** $2 \cdot h + 4$ **9.** $2 + 4(h)$

10. $2 + 3(10 - x)$ **11.** $350 \cdot h \cdot 15$ **12.** $(1 + x \div 100)(1.5)$

Solve each *equation* for the variable. To solve an equation, ask yourself what operation was performed on the variable. Then ask how you can undo the operation. Remember to always keep the equation in balance.

Example

$7h - 316 = 594$ 316 is subtracted from $7h$.
$7h - 316 + 316 = 594 + 316$ Add 316 to each side.
$7h + 0 = 910$ $-316 + 316 = 0$
$7h = 910$ h is multiplied by 7.
$\dfrac{7h}{7} = \dfrac{910}{7}$ Divide each side by 7.
$1h = 130$ $7 \div 7 = 1$
$h = 130$ $1h = h$

13. $13x = 143$ **14.** $0.055P = 660$ **15.** $1116 = t - 261$

16. $0.7x + 100 = 37$ **17.** $12x - 59 = 841$ **18.** $5.2e + 498 = 2500$