

## Chapter 1 Review

**Solve each equation. Justify each step and check your work.**

1)  $\frac{x}{10} = 15$

2)  $-19 = -15 + p$

3)  $58 = \frac{a}{78}$

4)  $11 = x + (-8)$

**Solve each equation.**

5)  $-2n + 4 = -14$

6)  $-5x + 3 = -22$

7)  $12 - 6k = -72$

8)  $-2 + \frac{p}{2} = -4$

9)  $2 + 14r = 16$

10)  $6(20 + b) = -42$

**Solve each equation. Answers may include one solution, no solution or infinitely many solutions.**

11)  $113 = 6(3 - 3p) + 5$

12)  $-260 = -5(5 + 8n) + 5$

13)  $5(p - 2) = -9 + 5p$

14)  $-3 - 4r = -1 - 2(1 + 2r)$

**Solve the literal equation for y.**

15)  $2y - 18x = -26$

16)  $11 - \frac{1}{2}y = 3 + 6x$

Your car needs new brakes. You call a dealership and a local mechanic for prices.

	Cost of parts	Labor cost per hour
Dealership	\$24	\$99
Local Mechanic	\$45	\$89

- After how many hours are the total costs the same at both places? Justify your answer.
- When do the repairs cost less at the dealership? at the local mechanic? Explain.