

Name: _____

HW# 23

Simplify each expression.

1. $-(4x + 2)$

$$\boxed{-4x - 2}$$

2. $5x - (2x - 4)$

$$\begin{array}{l} 5x - 2x + 4 \\ \boxed{3x + 4} \end{array}$$

3. $8 - (6y + 2)$

$$\begin{array}{l} 8 - 6y - 2 \\ \boxed{-6y + 6} \end{array}$$

4. $0.5x + 2.1 - (3.5x + 1.4)$

$$\begin{array}{l} 0.5x + 2.1 - 3.5x - 1.4 \\ \boxed{-3.0x + 0.7} \end{array}$$

5. What is $8x + 2$ subtracted from $3x - 5$?

$$\begin{array}{l} 1(3x - 5) - 1(8x + 2) \\ 3x - 5 - 8x - 2 \\ \boxed{-5x - 7} \end{array}$$

6. What is the difference of $-7x + 3$ and $2x - 4$?

$$\begin{array}{l} 1(-7x + 3) - 1(2x - 4) \\ -7x + 3 - 2x + 4 \\ \boxed{-9x + 7} \end{array}$$

7. What is $(4x^2 - 5x + 3)$ subtracted from $(2x^2 - 4)$?

$$\begin{array}{l} 1(2x^2 - 4) - 1(4x^2 - 5x + 3) \\ 2x^2 - 4 - 4x^2 + 5x - 3 \end{array}$$

$$\boxed{-2x^2 + 5x - 7}$$

8. ABC Amusement park charges \$8 to enter and \$3 per ride, r , that you go on.

a. Write an expression to represent the cost of going to ABC Amusement park.

$$3r + 8 \text{ dollars}$$

XYZ Amusement park charges \$12 to enter and \$4 per ride, r , that you go on. Write a simplified

b. Write an expression to represent the cost of going to XYZ Amusement park.

$$4r + 12 \text{ dollars}$$

c. Write a simplified expression to show how much more XYZ Amusement park charges than ABC Amusement park.

$$\begin{array}{l} (4r + 12) - (3r + 8) \\ 4r + 12 - 3r - 8 \end{array}$$

$$r + 4 \text{ dollars}$$