Math 2 Name _____

Unit Zero Review Per _____ Date _____

1. Given the function, $f(x) = -3x - 7$, find:

   a. *f(2)* b. *f(-5)* c. *f(-1)*

2. Given the function, $g(x) = x^2 - 4x + 2$, find:

   a. *g(3)* b. *g(-2)* c. *g(5)*

3. Using the functions from problems 1 and 2 find the following:

   a. $f(3) + g(1)$ $-16 + (-1) = -17$ b. $g(6) - f(-2)$

$f(3) = -3(3) - 7$ $g(1) = 1^2 - 4(1) + 2$ $g(6) = 6^2 - 4(6) + 2$ $f(-2) = -3(-2) - 7$

$-9 - 7$ $1 - 4 + 2$ $36 - 24 + 2$ $= 6 - 7$

-16 -1 14 -1

$14 - (-1) = 15$

4. Solve of each equation.

   a. $m - 30 = 6 - 2m$ b. $2(x + 6) = -2(x - 4)$

   c. $4(-3x + 1) = -10(x - 4) - 14x$ d. $\frac{x}{5} + 3 = 6$

$2\left(\frac{3x+5}{2}\right) = (10)2$

$3x + 5 = 20$

$-5 \quad -5$

$\frac{3x}{3} = \frac{15}{3}$

$x = 5$

5. Simplify the following expression. If possible write the expanded form in factored form. Make sure all answers are in standard form.

a. $7x^2 + 12x - 40x - x^2$

$6x^2 - 28x$.

$2x(3x - 14)$.

b. $x - 6x^2 - 3x + 4x^2$

c. $12(n-3) + 4(n-13)$

d. $4(x + 2x) - 2(x^2 - x)$

6. Simplify using the order of operations

a. $16 \div 8 \cdot 2^2$

b. $6(5-3)^2 + 3$

c. $10 \div 2 + 3 + 9$

d. $5 + 8 \cdot 2 - 4$

e. $\frac{3^2-3}{2 \cdot 9}$

f. $[10 + (5^2 \cdot 2)] \div 6$

$[10 + (25 \cdot 2)] \div 6$

$[10 + 50] \div 6$

$60 \div 6$

10

7. Find the product

a. $(2x-5)(3x-4)$

b. $(5x-3)(x+7)$

c. $(4x-1)^2$

c. $(2x+5)(2x-5)$

d) $(x-3)(x^2-3x-2)$

d. $(x-3)(x-5)(2x+1)$