## <u>Math 085 - Test 2a</u>

March 6, 2013

Name _	
	Score

Part I - Solve each problem. Show all work to receive full credit. Supply explanations where necessary. Each problem is worth 2 points. Calculators ARE ALLOWED on this portion of the test.

- 1. Solve the equation: -53x + 543 = 1444
- 2. Evaluate the following expression:  $\frac{16^2 24 \cdot 23}{3 \cdot 4 + 5^2}$
- 3. Compute each of the following.

(a) 
$$23,011 - (-60,432)$$

(b) 
$$(-15)(9)(-29)(-17)$$

4. Find the prime factorization of 4004.

5. Determine four multiples of 1773.

## Math 085 - Test 2b

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Part II - Solve each problem. Show all work to receive full credit. Supply explanations where necessary. Calculators ARE NOT ALLOWED on this portion of the test.

- 1. (2 points) List all the factors of 24.
- 2. (3 points) Find the prime factorization of each number.
  - (a) 112
  - (b) 450
- 3. (1 point) List the terms:  $3x^2 7x + 2x^2$
- 4. (1 point) On January 17, the temperature dropped from  $21^{\circ}F$  to  $-6^{\circ}F$ . By how many degrees did the temperature drop?
- 5. (2 points) Use the distributive property to remove the parentheses. Then simplify by combining like terms.

$$2(x+5y) + 7(2y - 3x)$$

6. (6 p	oints) Use divisibility tes	ets for each of the f	following problems	S.
(a)	Circle each number tha	t is divisible by 2.		
	142	6676	10101	3693
(b)	Circle each number tha	t is divisible by 5.		
	6751	3005	2086	90
(c)	Circle each number tha	t is divisible by 10		
	762	7620	700,002	110, 110
(d)	Circle each number tha	t is divisible by 3.		
	342	8173	10101	3693
(e)	Circle each number tha	t is divisible by 9.		
	111	792	30303	14,643
(f)	Circle each number tha	t is divisible by 6.		
	530	3333	162	5514

7. (3 points) Simplify each expression by combining like terms.

(a) 
$$-17x + x$$

(b) 
$$a + 3b + 5a - 2 + b$$

(c) 
$$8x^2 + 3y - 2x^2 - 2y$$

8. (4 points) Solve each equation.

(a) 
$$13 = 3 + 2x$$

(b) 
$$5 - y = 7$$

(c) 
$$-4x = 36$$

(d) 
$$2w - 7 + w = 5 - 12$$

- 9. (2 points) Evaluate  $\frac{n^2 p}{2}$  when n = 9 and p = 5.
- 10. (2 points) Evaluate each expression.

(a) 
$$9 - |7 - 3^2|$$

(b) 
$$\frac{100 - 6^2}{(-5)^2 - 3^2}$$

11. (4 points) Compute each of the following.

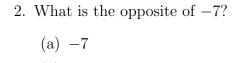
(a) 
$$8 - (-10)$$

(b) 
$$-9 \times (-4)$$

(c) 
$$7 + (-19)$$

(d) 
$$45 \div (-5)$$

Part III - Circle the best answer for each problem. Each problem is worth 2 points.
CALCULATORS ARE NOT ALLOWED ON THIS PORTION OF THE TEST.
1. Which one of the these numbers is a composite number?
(a) 1
(b) 23
(c) 17
(d) 39



3. Two negative numbers are added. Which of the following is true?

- (a) The result is a positive number.
- (b) The result is a negative number.
- (c) The sign of the result depends on the numbers.

4. Which one of these numbers is prime?

- (a) 21 (b) 99
- (c) 51(d) 31
- 5. Evaluate -(-x) when x = -5.
  - (a) -5
  - (b) 5
  - (c) -(-5)
  - (d) 0