

Math 085 - Test 2a
September 26, 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. Evaluate the following expression: $\frac{113 - 17^3}{3 \cdot 5 + 8^3 - 507}$

2. Combine like terms: $317x - 45y + 95x - 39y + 17$

3. Evaluate $x - 13x^2$ when $x = 15$.

4. Solve the equation: $23x - 24 = -1082$

5. Compute $-974 - (-324)$.

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) Put these integers in order from least to greatest.

9, -5, -3, -8, 1, -15, 4, 0

2. (1 point) What is the value of $-(-x)$ if $x = 3$.

3. (2 points) Compute each absolute value.

(a) $|-17|$

(b) $|8|$

(c) $|0|$

(d) $|-5|$

4. (1 point) Circle the greatest integer: -6, -4, -9, -12

5. (2 points) List the terms: $3x^2 - 7x - 2x^2 + 1$

6. (10 points) Compute each of the following.

(a) $-8 + 3$

(b) $-6 - (-9)$

(c) $-4 \times (-7)$

(d) $-42 \div 6$

(e) $-7 + (-4)$

(f) $-7 - 4$

(g) $6 \times (-3)$

(h) $5 - 9$

(i) $-20 \div (-10)$

(j) $8 + (-2)$

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

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

(b) $-13y + y$

(c) $6x^2 + 3y - 2x^2 - 2y$

8. (4 points) Solve each equation.

(a) $23 = 7 + 2x$

(b) $9 - w = -4$

(c) $-4x = 36$

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

9. (2 points) Use the distributive property to remove the parentheses. Then simplify by combining like terms.

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

10. (3 points) Evaluate each expression.

(a) $-4 - (-3) \times 8$

(b) $8 - |6 - 4^2|$

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

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.

- The expression $a - b$ is equivalent to
 - $b - a$
 - $a + b$
 - $a + (-b)$
 - $(-a) + b$

- What is the opposite of -3 ?
 - 3
 - -3
 - $1/3$
 - 0

- Two negative numbers are multiplied. Which of the following is true?
 - The result is a positive number.
 - The result is a negative number.
 - The sign of the result depends on the numbers.

- What would be the best first step in solving $4x - 7 = 1$?
 - Add 7 to both sides.
 - Subtract 4 from both sides.
 - Subtract 1 from both sides.
 - Add $4x$ to both sides.

- A rectangle measures 5 ft by 9 ft. Find the perimeter of the rectangle.
 - 45 ft^2
 - 14 ft
 - 90 ft
 - 28 ft