

Math 085 - Test 1a
September 5, 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. Compute 8^6 .
2. Jonni needs \$1973 for a trip to Portugal. She has already saved up \$896. How much more must Jonni save?
3. Find the quotient and remainder: $13693 \div 27$
4. Evaluate the following expression: $9[7(8 - 2) - 2^4 + 36 \div 3]$
5. A rectangular rug is 57 inches wide and 89 inches long. Find the area of the rug.

Math 085 - Test 1b

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Part II - Solve each problem. Show all work to receive full credit. Supply explanations where necessary. Each problem is worth 2 points. **CALCULATORS ARE NOT ALLOWED ON THIS PORTION OF THE TEST.**

1. Estimate by rounding to the nearest ten: 65×84

2. Find the product of 37 and 59.

3. Aunt Sally evaluated $15 - 6 \cdot 2$ as follows:

$$15 - 6 \cdot 2 = 9 \cdot 2 = 18$$

What did Aunt Sally do wrong? What answer should she get?

4. Is $x = 2$ a solution of the equation $7x + 8 = 22$? Explain your reasoning.

5. A large auditorium contains a rectangular array of chairs. There are 2624 chairs in all, and they are arranged into 82 rows. Explain how you could find the number of columns. (You don't actually need to compute the number.)

6. Round 84735 to the nearest

(a) ten

(b) hundred

(c) thousand

(d) ten thousand

7. Evaluate: $3 \cdot 5 + 2(10 - 3^2)^2$

8. Solve each equation.

(a) $7x = 63$

(b) $w - 9 = 24$

9. Show a way to estimate $37 + 32 + 35 + 29 + 31 + 28 + 34$.

10. In the expression $5 + 6[7(8 - 2^2) - 9]$, which operation should you do first? Which operation would you do last?

11. Fred computed $7 \cdot 13$ as follows:

$$7 \cdot 13 = 7 \cdot (10 + 3) = 7 \cdot 10 + 7 \cdot 3 = 70 + 21 = 91$$

What is the name of the property that Fred used? Now use that property to rewrite $4 \cdot (5 + 9)$.

12. Find the quotient and remainder: $8917 \div 6$

13. Evaluate: $[6 \times 3 - 2(24 \div 3)]^3$

14. Solve each equation.

(a) $19 + y = 59$

(b) $x \div 8 = 6$

15. Evaluate each expression.

(a) $12 \div 6 \div 2 + 2^2 - 8 \div 2$

(b) $3[6(4 - 2) \div 3 \cdot (2 - 1)]$

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. By using the distributive property, which number should fill in the blank?

$$6 \cdot (3 + 9) = 18 + \underline{\hspace{2cm}}$$

- (a) 12
 - (b) 39
 - (c) 9
 - (d) 54
2. When evaluating the expression $(4 + 6) \cdot 6 \div 3 - 2$, which operation should be done first?
- (a) multiplication
 - (b) division
 - (c) subtraction
 - (d) addition
3. In the division fact $186 \div 8 = 23 \text{ R } 2$, which number is the dividend?
- (a) 186
 - (b) 8
 - (c) 23
 - (d) 2
4. Think about the following problem:

Sabrina's tuition for her 5 classes is \$3425. If each class costs the same amount, how much is each class?

Which of these equations can be used to solve the problem?

- (a) $x - 3425 = 5$
 - (b) $5 + x = 3425$
 - (c) $5x = 3425$
 - (d) $x \div 3425 = 5$
5. Which one of the these expressions is NOT defined?
- (a) $0 \div 7$
 - (b) $15 \div 0$
 - (c) $0/3$
 - (d) $11/1$