1. Test each number for divisibility by 2, 3, 5, 9 and 10

a. 504 b. 28,014

2. Solve the following problems with exponents (write the exponent in expanded form to help):

a. $4^3 + 9 \bullet 3$ b. $2 + (71 - 3^4)$ c. $6^3 - 220$

3. State whether each number is prime or composite. If it is composite, write one of the factors that makes it composite.

a. 67 b. 38 c. 87

4. Write all of the factors for each number (start with the number 1)

a. 24 b. 32

5. Find the Greatest Common Factor for each set of numbers:

a. 72 and 120 b. 7 and 15 c. 35 and 80

6. Find the Least Common Multiple for each problem:

a. 7 and 11 b. 12 and 22 c. 10, 20, 35

7. Use the Distributive Property to solve

a. $4 (3x + 2)$ b. $7 (2m - 9k + 4d)$ c. $5 (w + 12)$

8. Combining Like Terms

a. 3m + 8y - 4 + 2m + 9

b. 6j + 6j – 5m + 3

c. 29n + 4w – 8n – w

d. $5x^2 - 3x + 4 + 6x^2 + 3x + 6$

9. Which of the following is the definition for “term”?

a. a letter used to represent a variable
b. when two or more numbers have the same exact variable
c. a number, variable or product of a number and variable
d. a number without a variable

10. Which of the following is the definition of “constant”?

a. a number without a variable
b. a number with a variable next to it
c. a number, variable or product of a number and variable
d. a letter used to represent a variable

11. Which of the following is the definition of “coefficient”?

a. a number without a variable
b. a number with a variable next to it
c. a number, variable or product of a number and variable.
d. a letter used to represent a variable

12. Use the reverse of the distributive property to factor each expression:

a. 9x + 12

b. 56c + 24 + 72d

Answers: **1. a**. 2, 3, 9 **b**. 2, 3 **2. a**. 91 **b**. (-8) **c**. (-4) **3**. **a**. prime **b**. comp. by 2 **c.** comp. by 3 **4. a.** 1, 24, 2, 12, 3, 8, 4, 6 **b.** 1, 32, 2, 16, 4, 8 **5. a**. 24 **b**. 1 **c.** 5 **6. a**. 77 **b.** 132 **c.** 140 **7. a**. 12x + 8 **b**. 14m - 63k + 28d **c.** 5w + 60 **8. a.** 5m + 8y + 5 **b.** 12j - 5m + 3 **c.** 21n + 3w **d**. $11x^2 + 10$ **9.** C **10.** A **11.** B **12. a.** 3 (3x + 4) **b.** 8(7c + 3 + 9d)