

Name: \_\_\_\_\_

### Number Theory Review

Classify each number as prime or composite. Example: 2 = prime

1. 32 = \_\_\_\_\_ 2. 47 = \_\_\_\_\_ 3. 55 = \_\_\_\_\_

If the first number is divisible by the second number write yes.

4. 345 by 3 \_\_\_\_\_ 5. 734 by 2 \_\_\_\_\_ 6. 750 by 5 \_\_\_\_\_

List all of the factors of each number. Example  $33 = 1, 3, 11, 33$

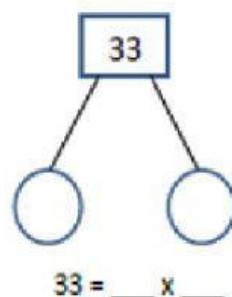
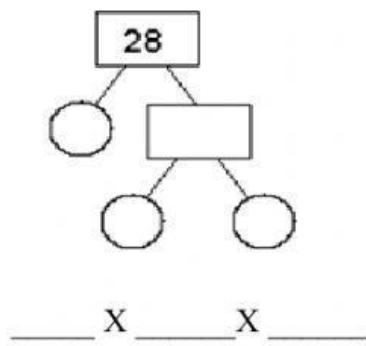
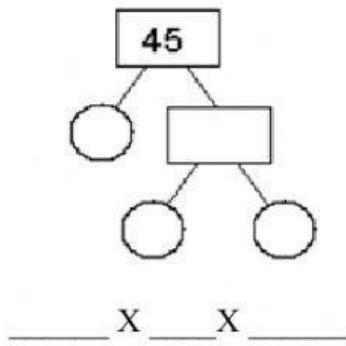
7.  $32 =$  \_\_\_\_\_ 8.  $16 =$  \_\_\_\_\_ 9.  $24 =$  \_\_\_\_\_

List 5 multiples of the following. (4: 4, 8, 12, 16, 20)

10. 8: \_\_\_\_\_ [11] 3: \_\_\_\_\_

Find the prime factorization of each number. Use a factor tree. Example

$$\begin{array}{c} 8 \\ \swarrow \quad \searrow \\ 2 \quad 4 \\ \swarrow \quad \searrow \\ 2 \quad 2 \end{array} = 2 \times 2 \times 2 = 2^3$$



Find the greatest common factor of each set of numbers.  $28 = 1, 2, 4, 7, 14, 28$  and  $44 = 1, 2, 4, 11, 22, 44$  = GCF = 4

13.  $4 =$  \_\_\_\_\_ 14.  $6 =$  \_\_\_\_\_ 15.  $3 =$  \_\_\_\_\_

14.  $14 =$  \_\_\_\_\_ 28 = \_\_\_\_\_ 10.  $39 =$  \_\_\_\_\_

GCF = \_\_\_\_\_ GCF = \_\_\_\_\_ GCF = \_\_\_\_\_

Find the least common multiple.  $3 = 3, 6, 9, 12, 15, 18$  and  $5 = 5, 10, 15, 20 =$  LCM = 15

16.  $4 =$  \_\_\_\_\_ 17.  $5 =$  \_\_\_\_\_ 18.  $4 =$  \_\_\_\_\_

8 = \_\_\_\_\_ 10 = \_\_\_\_\_ 12 = \_\_\_\_\_

LCM = \_\_\_\_\_ LCM = \_\_\_\_\_ LCM = \_\_\_\_\_