

# Homework #3: Due Friday, Sept. 27

Name \_\_\_\_\_  
Buckley or Gietzen

1.
  - a. What is the **greatest** common factor of 12 and 16? \_\_\_\_\_
  - b. Give a different common factor of 12 and 16. \_\_\_\_\_
  - c. What is the **least** common multiple of 6 and 10? \_\_\_\_\_
  - d. Give an additional common multiple of 6 and 10. \_\_\_\_\_
  
2. Jack has basketball practice every **three** days. He babysits his younger brother every **four** days.
  - a. How many times during a 30-day month will Jack have a conflict between basketball and babysitting?  
\_\_\_\_\_
  - b. How many days into the month will this happen? \_\_\_\_\_
  
3. **MULTIPLE CHOICE: CHOOSE THE CORRECT ANSWER BELOW.** A red bus leaves a theme park every 24 minutes and a blue bus leaves the park every 20 minutes. They both leave the park at noon. When is the next time that both buses will leave the park?
  - A. 12:48 p.m.
  - B. 1:20 p.m.
  - C. 1:34 p.m.
  - D. 1:40 p.m.
  - E. 2:00 p.m.

4. A prime number has exactly \_\_\_\_ factors: \_\_\_\_\_ and itself.

5. A composite number has \_\_\_\_\_ or more factors.

6. Place the numbers below in the correct box.

10    77    19    31    5    80    52    41    33    8    2

Prime	Composite

7. Using the numbers provided below, fill in each space to complete the statement. Use each number ONLY ONCE.

<b>2</b>	<b>4</b>	<b>8</b>	<b>10</b>	<b>12</b>	<b>48</b>	<b>60</b>	<b>120</b>
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a. Greatest common factor of 4 and 12: \_\_\_\_\_ ; least common multiple of 4 and 12: \_\_\_\_\_

b. Greatest common factor of 16 and 24: \_\_\_\_\_ ; least common multiple of 16 and 24: \_\_\_\_\_

c. Greatest common factor of 10 and 60: \_\_\_\_\_ ; least common multiple of 10 and 60: \_\_\_\_\_

d. Greatest common factor of 8 and 30: \_\_\_\_\_ ; least common multiple of 8 and 30: \_\_\_\_\_

**For #8-15, tell whether the second number is a multiple of the first. (Say YES or NO.)**

8. 2; 71

9. 1; 18

10. 3; 81

11. 4; 74

12. 9; 117

13. 8; 176

14. 13; 60

15. 17; 68

16. For parts a-d below, list ALL factors, then **circle** the Greatest Common Factor (GCF) for each pair.

a. 9 and 24

b. 25 and 40

c. 11 and 17

d. 8 and 12

17. For parts **a-d** below, list the first 6 multiples of each number, then **circle** the least common Multiple (LCM) for each pair.

**a.** 9 and 12

**b.** 11 and 6

**c.** 25 and 10

**d.** 15 and 20