

Name: _____

Date: _____ Block: _____

Chapter 5.2 Common Factors

Vocabulary

Greatest Common Factor (GCF): the _____ factor that two numbers share.

For example:

Least Common Multiple (LCM): the _____ multiple that both numbers share.

For example:

Example 1: GCF and LCM (Using Prime Factorization)

a) Determine the greatest common factor of 138 and 198.

b) Determine the least common multiple of 18, 20, and 30.

Example 2: Determine the GCF

a) $16x^2y$ and $24x^2y^3$

b) $5m^2n$ and $15mn^2$

Example 3: Write a Polynomial in Factored Form

a) $7a^2b - 28ab + 14ab^2$

b) $27r^2s^2 - 18r^3s^2 - 36rs^3$

Example 4: Determine Binomial Factors

Write the expression in factored form.

$$3x(x - 4) + 5(x - 4)$$

Example 5: Solve a Problem

Paula has 18 toonies, 30 loonies, and 48 quarters. She wants to group her money so that each group has the same number of each coin and there are no coins left over.

- a) What is the max number of groups?
- b) How many of each coin will be in a group?
- c) How much money will each group be worth?

Homework:

P. 220 # 1 – 7 (pick 3)

#8, 10 (must know), 11, 12, 13, 15, 16