Name: Class: Date:

GREATEST COMMON FACTOR (GCF)

PART A: *Find the greatest common factor (GCF) of each pair.*

1. 18 and 30

2. 9 and 25

3. 60 and 45

4. 23 and 29

5. 49 and 14

6. 84 and 105

PART B: *Read each question carefully. Answer the question showing all your work in the space provided.*

7. The cast of a play had a party. The drama teacher served 20 cookies and 40 carrot sticks as refreshments. Each cast member ate the same number of whole cookies and the same number of whole carrot sticks. Nothing was left over. The drama teacher did not eat. How many cast members might have been at the party? List all possibilities.

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8. Ski Club members are preparing identical welcome kits for new skiers. The Ski Club has 60 hand-warmer packets and 48 foot-warmer packets. Find the greatest number of identical kits they can prepare using all of the hand-warmer and foot-warmer packets. How many hand-warmer packets and foot-warmer packets would each welcome kit have?

9. There are 435 representatives and 100 senators serving in the United States Congress. How many identical groups with the same numbers of representatives and senators could be formed from all of Congress if we want the largest groups possible? How many representatives and senators would be in each group?

10. Find the greatest common factor of each pair.

a. 5 and 10

b. 8 and 4

c. 8 and 10

d. 8 and 15

e. For which pair of numbers is the greatest common factor 1?

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PART C: *Greatest Common Factor Extension (optional, but highly recommended!)*

11. List three pairs of numbers (not used in parts A & B) whose greatest common factor is 1.

12. Can you make a generalization about when the greatest common factor of two numbers will always be 1?

13. Is the GCF of a pair of numbers ever equal to one of the numbers? Explain with an example.

14. Is the GCF of a pair of numbers ever greater than both numbers? Explain with an example.