The Greatest Common Factor: Worked Answers

Each problem solved the way the lesson does it.

Name: _____ Date: _____

1. Find the GCF of 8 and 12

   - Factors of 8, biggest first: 8, 4, 2, 1.
   - 12 ÷ 8 has a remainder. 12 ÷ 4 = 3.

   Answer: 4

2. Find the GCF of 15 and 25

   - Factors of 15: 15, 5, 3, 1.
   - 25 ÷ 15 has a remainder. 25 ÷ 5 = 5.

   Answer: 5

3. Find the GCF of 20 and 30

   - Factors of 20: 20, 10, 5, 4, 2, 1.
   - 30 ÷ 20 has a remainder. 30 ÷ 10 = 3.

   Answer: 10

4. Find the GCF of 7 and 12

   - Factors of 7: 7, 1.
   - 12 ÷ 7 has a remainder.

   Answer: 1

5. Find the GCF of 12, 18, and 30

   - Factors of 12: 12, 6, 4, 3, 2, 1.
   - 18 ÷ 12 has a remainder. 18 ÷ 6 = 3 and 30 ÷ 6 = 5.

   Answer: 6

6 Find the GCF of the terms 9x and 27

- Use the numbers: 9 and 27.
- 27 ÷ 9 = 3.

Answer: 9

7 Find the GCF of the terms 10y and 35

- Factors of 10: 10, 5, 2, 1.
- 35 ÷ 10 has a remainder. 35 ÷ 5 = 7.

Answer: 5

8 Ana has 16 pencils and 24 erasers. She wants identical kits that use every one. What is the most kits she can make?

- The number of kits has to divide 16 and 24.
- The GCF of 16 and 24 is 8.

Answer: 8 kits (each with 2 pencils and 3 erasers)