

Factors and Greatest Common Factor

Warmup

1. Determine if 416 is divisible by

2: _____

7: _____

3: _____

8: _____

4: _____

9: _____

5: _____

10: _____

6: _____

2. $2t = 26$

3. $\frac{x}{4} = 8$

4. $t - 7 = 11$

Factors and Greatest Common Factor

- I. Factors of a Number
- II. Prime and Composite Numbers
- III. GCF: Greatest Common Factor

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Pre-Algebra and Geometry I

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I. Factors of a Number

Determine the factors of each number.

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Factor:

factor x factor = number

To determine all the factors of a number: Use the divisibility tests.

Start at 1, write 1 and the number

Next test 2, is the number divisible by 2?

If Yes, $2 \times \underline{\quad} = \text{number}$, add the two factors to the list.

Continue until you are testing more than $\frac{1}{2}$ the value of the number.

9

8

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Determine the factors of each number.

20

100

5. 65

6. 28

II. Prime and Composite Numbers

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Prime Number:

A number that has exactly two factors.

1 and the number

Composite Number:

A number that has more than two factors.

25

List the prime numbers less than 50

Prime Numbers:

Determine if each number is prime or composite. (Circle the answer)

27

prime
composite

75

prime
composite

36

prime
composite

7.

55

prime
composite

47

prime
composite

93

prime
composite

III. GCF: Greatest Common Factor

20: 1, 2, 4, 5, 10, 20

100: 1, 2, 4, 5, 10, 20, 25, 50, 100

GCF of 20 and 100 is _____

GCF (Greatest Common factor)

The GCF is the largest factor that is common to each of the numbers.

Steps to find the GCF (Greatest Common factor)

1. List the factors of each number.
2. Circle the common factors.
3. The largest number circled is the Greatest Common Factor (GCF)

What is the GCF of 20 and 25?

8. What is the GCF of 12 and 24?

