Name_____

Reteaching Page

4.5b Equivalent Fractions – Simplifying Fractions

Equivalent Fractions name the same amount. Most of the time, you will be asked to show your answer in simplest form (otherwise the multitude of possible answers to a problem would make checking your work prohibitive!).

Simplest Form is a fraction whose numerator and denominator have a GCF of 1.

There are several ways to go about simplifying fractions.

GCF Style

1. Find the GCF of the numerator and denominator.
2. Create a fraction (equivalent to 1) using the GCF.
3. Divide the original fraction by "one".

$$\frac{15}{24} \div \frac{3}{3} = \frac{5}{8}$$

15: 1, **3**, 5, 15
24: 1, 2, **3**, 4, 6, 8, 12, 24

Prime Factor Style

1. Write the numerator and denominator as a product of prime factors.
2. Delete all common prime factors.
3. Multiply the remaining factors.

$\frac{36}{48}$

36 = 3 * 3 * 2 * 2
48 = 3 * 2 * 2 * 2 * 2

36 = [redacted] 3 [redacted]
48 = [redacted] 2 [redacted] 2

$$\frac{3}{2 * 2} = \frac{3}{4}$$

Use one of the methods above to simplify each of the following fractions.

$\frac{6}{24} =$ ___

$\frac{12}{15} =$ ___

$\frac{12}{21} =$ ___

$\frac{8}{16} =$ ___

$\frac{16}{56} =$ ___

$\frac{9}{24} =$ ___

$\frac{7}{9} =$ ___

$\frac{21}{25} =$ ___