EQUIVALENT FRACTIONS 3.1.1

Fractions that name the same value are called equivalent fractions, such as $\frac{2}{3} = \frac{6}{9}$.
One method for finding equivalent fractions is to use the Multiplicative Identity (Identity Property of Multiplication), that is, multiplying the given fraction by a form of the number 1 such as $\frac{2}{2}$, $\frac{5}{5}$, etc. In this course we call these fractions a "Giant One." Multiplying by 1 does not change the value of a number.

For additional information, see the Math Notes box in Lesson 3.1.1 of the *Core Connections, Course 1* text.

Example 1

Find three equivalent fractions for $\frac{1}{2}$.

$\frac{1}{2} \cdot \boxed{\frac{2}{2}} = \frac{2}{4}$ $\frac{1}{2} \cdot \boxed{\frac{3}{3}} = \frac{3}{6}$ $\frac{1}{2} \cdot \boxed{\frac{4}{4}} = \frac{4}{8}$

Example 2

Use the Giant One to find an equivalent fraction to $\frac{7}{12}$ using 96ths: $\frac{7}{12} \cdot \boxed{1} = \frac{?}{96}$

Which Giant One do you use?

Since $\frac{96}{12} = 8$, the Giant One is $\frac{8}{8}$: $\frac{7}{12} \cdot \boxed{\frac{8}{8}} = \frac{56}{96}$

Problems

Use the Giant One to find the specified equivalent fraction. Your answer should include the Giant One you use and the equivalent numerator.

1. $\frac{4}{3} \cdot \boxed{1} = \frac{?}{15}$
2. $\frac{5}{9} \cdot \boxed{1} = \frac{?}{36}$
3. $\frac{9}{2} \cdot \boxed{1} = \frac{?}{38}$
4. $\frac{3}{7} \cdot \boxed{1} = \frac{?}{28}$
5. $\frac{5}{3} \cdot \boxed{1} = \frac{?}{18}$
6. $\frac{6}{5} \cdot \boxed{1} = \frac{?}{15}$

Answers

1. $\frac{5}{5}$, 20 2. $\frac{4}{4}$, 20 3. $\frac{19}{19}$, 171 4. $\frac{4}{4}$, 12 5. $\frac{6}{6}$, 30 6. $\frac{3}{3}$, 18