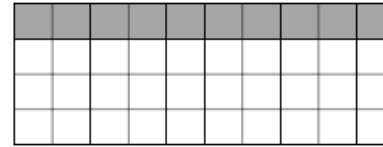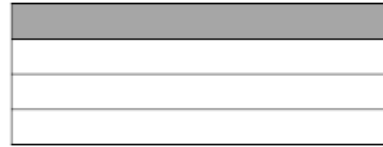# Equivalent Fractions (5-3)

Equivalent fractions...

$$\frac{1 \cdot 10}{4 \cdot 10} \longrightarrow \frac{10}{40}$$

Example 1: Write two fractions that are equivalent to each.

I Do	You Do
$\dfrac{3}{7}$	$\dfrac{4}{9}$
$\dfrac{3 \cdot 2}{7 \cdot 2} = \dfrac{6}{14}$	$\dfrac{4 \cdot 4}{9 \cdot 4} = \dfrac{16}{36}$
$\dfrac{3 \cdot 3}{7 \cdot 3} = \dfrac{9}{21}$	$\dfrac{4 \cdot 3}{9 \cdot 3} = \dfrac{12}{27}$

Example 2: Complete the statement.

I Do	You Do
$$\frac{2 \cdot 3}{5 \cdot 3} = \frac{x}{15}$$ x = 6	$$\frac{y \cdot 2}{9 \cdot 2} = \frac{16}{18}$$ ÷2 ÷2 y = 8

Example 3: Simplify each fraction.

I Do	You Do
$$\frac{14 \div 7}{21 \div 7} = \frac{2}{3}$$	$$\frac{12 \div 6}{18 \div 6}\;\frac{2}{3}$$ $$\frac{12 \div 3}{18 \div 3} = \frac{4 \div 2}{6 \div 2} = \frac{2}{3}$$

IXL Lessons: 6th Grade → I.4, I.5

Example 4: Apply your knowledge of fractions.

I Do	You Do
You spend 12 minutes on English homework, 16 minutes on math homework, and 12 minutes on science homework. What fractions of the time did you spend on each subject?	While working on your chores, you spend 15 minutes dusting, 35 minutes vacuuming, and 10 minutes cleaning your room. What fraction of the time did you spend vacuuming?

$$\frac{1}{12} \atop \frac{16}{+12} \atop \overline{40}$$

I Do:

English

$$\frac{12 \div 4}{40 \div 4} = \boxed{\frac{3}{10}}$$

Math

$$\frac{16 \div 8}{40 \div 8} = \boxed{\frac{2}{5}}$$

$$\frac{16 \div 4}{40 \div 4} \quad \frac{4 \div 2}{10 \div 2}$$

or

$$\frac{2}{5}$$

Science

$$\boxed{\frac{3}{10}}$$

You Do:

$$\frac{35 \div 5}{60 \div 5} = \boxed{\frac{7}{12}}$$

IXL Lessons: 6th Grade → I.4, I.5