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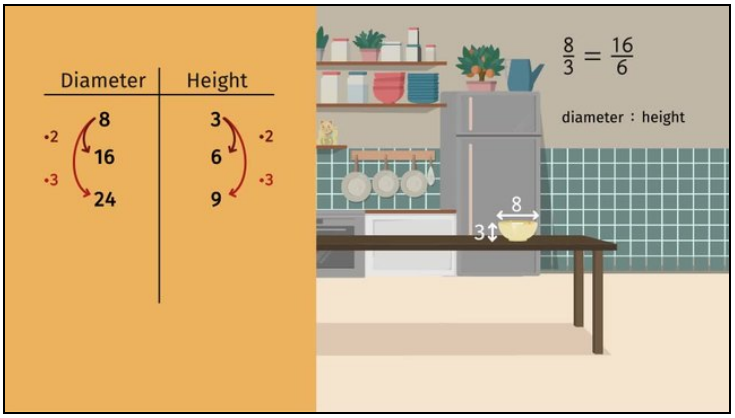
Determining Equivalent Ratios



1 **Decide which fractions are equivalent to each other.**

2 Explain what happens if we enlarge the bowl using ratios and ratio tables.

3 Define various key words related to ratios.

4 Solve the real-world problem using a ratio table.

5 Identify which ratios are equivalent to the ratios displayed in the central elements.

6 Complete the Ratio Tables.

\+ with many hints, answer keys, and solution approaches for all tasks

Decide which fractions are equivalent to each other.

Match equivalent fractions.

$\frac{3}{4}$	A	1	$\frac{11}{121}$
$\frac{15}{21}$	B	2	$\frac{24}{2}$
12	C	3	$\frac{14}{14}$
$\frac{20}{6}$	D	4	$\frac{5}{7}$
1	E	5	$\frac{6}{8}$
$\frac{3}{33}$	F	6	$\frac{50}{15}$

Watch the video for the task: https://us.sofatutor.com/v/5CH/aRK

Our hints for the tasks

1 from 6

Decide which fractions are equivalent to each other.

1. Hint

To reduce a fraction:

- Look for a **common factor** in the numerator and denominator.
- Divide the numerator and denominator by the common factor.
- Repeat this process until there are no more common factors.

Here are some examples:

Fraction	Common Factor	Reduced Result
$\frac{6}{15}$	3	$\frac{2}{5}$
$\frac{21}{42}$	21	$\frac{1}{2}$
$\frac{40}{32}$	8	$\frac{5}{4}$

2. Hint

Two fractions can be equivalent even though neither of them is reduced. Reduce each fraction and compare their results to determine if they are equivalent. Here are some examples:

1st Fraction	2nd Fraction	Equivalent?
$\frac{12}{21} = \frac{4}{7}$	$\frac{24}{42} = \frac{4}{7}$	yes
$\frac{12}{15} = \frac{4}{5}$	$\frac{15}{18} = \frac{5}{6}$	no
$\frac{10}{30} = \frac{1}{3}$	$\frac{30}{60} = \frac{1}{2}$	no

3. Hint

A whole number can be written as a fraction. $9 = \frac{9}{1}$.

Solutions and solution approaches for the tasks

1 from 6

Decide which fractions are equivalent to each other.

Answer key: A—5 // B—4 // C—2 // D—6 // E—3 // F—1

1st Fraction	2nd Fraction
$\frac{3}{4}$	$\frac{6}{8}=\frac{3}{4}$
$\frac{15}{21}=\frac{5}{7}$	$\frac{5}{7}$
$12=\frac{12}{1}$	$\frac{24}{2}=\frac{12}{1}$
$\frac{20}{6}=\frac{10}{3}$	$\frac{50}{15}=\frac{10}{3}$
$1=\frac{1}{1}$	$\frac{14}{14}=\frac{1}{1}$

Here is a table showing reducing to find the equivalent fractions.