

Math - Fractions

Learning Goal:

By the end of this lesson I should be able to create equivalent fractions (fractions that have the same value, but a different appearance), WITHOUT the use of a calculator (technology).

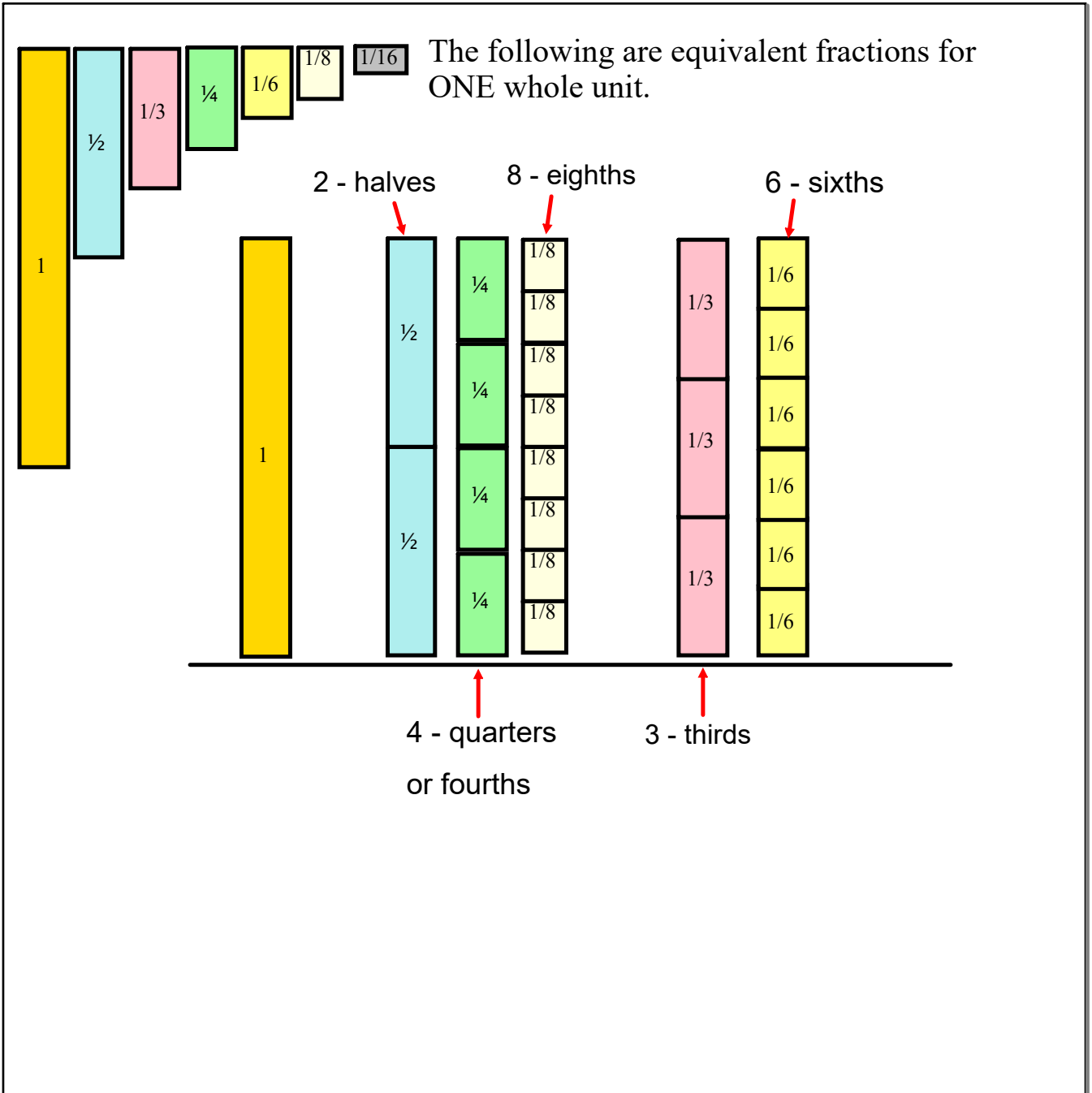
Equivalent Fractions

- the root word in Equivalent is "equal"
- in mathematics expressions can have different appearances but the same value

ie.

$$7 + 1 = 8$$

$$\sqrt{121} = 11$$



The following are equivalent fractions for $\frac{1}{2}$

We know they are equal because the stacks of fraction strip pieces all have the same height.

The following are equivalent fractions for $\frac{3}{4}$

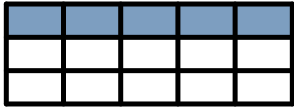
$$\frac{3}{4} = \frac{6}{8} = \frac{12}{16}$$

$$\frac{3}{4} \neq \frac{4}{6} \neq \frac{5}{6}$$

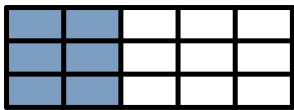
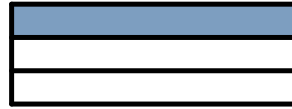
We know they are equal because the stacks of fraction strip pieces all have the same height.

We know they are NOT equal because the stacks of fraction strip pieces DO NOT have the same height.

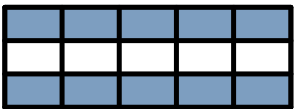
What fraction amounts do the following represent:



Answer



Answer



Answer



Algebraic Technique for Equivalent Fractions

Does multiplying by "1" change the value of number?

$$5 \times 1 =$$

$$100 \times 1 =$$

Can "1" be represented in more than one way?



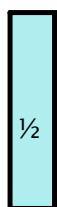
Algebraic Technique for Equivalent Fractions

"one"



Multiply both the top and bottom values by the SAME amount.

$$\frac{1}{2} \times \frac{2}{2} =$$



$$\frac{1}{2}$$

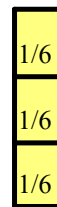


$$\frac{2}{4}$$

$$\frac{1}{2} \times \frac{3}{3} =$$



$$\frac{1}{2}$$



$$\frac{3}{6}$$

Create two more equivalent fractions of your own.

$$\frac{1}{2} \times \frac{\quad}{\quad} =$$

$$\frac{1}{2} \times \frac{\quad}{\quad} =$$

Algebraic Technique for Equivalent Fractions

Find three equivalent fractions for $\frac{3}{4}$

$$\frac{3}{4}$$

$$\frac{3}{4}$$

$$\frac{3}{4}$$

Press PAUSE on the video and try the following

Find the TWO Equivalent fractions for the following:

$$\frac{7}{8}$$

$$\frac{1}{3}$$

$$\frac{3}{5}$$

$$\frac{11}{12}$$

Task 2 - Fractions