Topic 9 Lesson 4

Understand it!

A fraction has many different names.

Finding More Equivalent Fractions

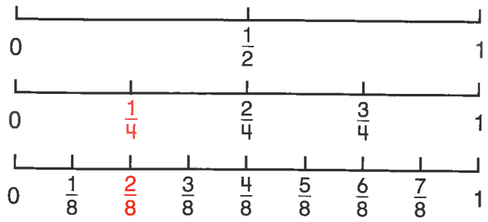
How can you find two fractions that name the same part of a whole?

Lee ate $\frac{1}{4}$ of a pizza. Write another fraction that is equivalent to $\frac{1}{4}$.

Equivalent fractions *name the same part of a whole.*

One Way

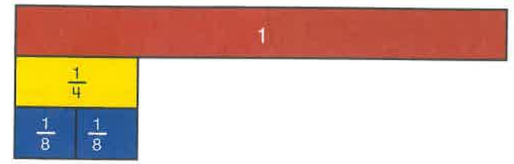
You can use number lines to find equivalent fractions.



So, $\frac{1}{4}$ and $\frac{2}{8}$ are equivalent fractions.

Another Way

Both $\frac{1}{4}$ and $\frac{2}{8}$ name the same part of a whole.



So, $\frac{1}{4}$ and $\frac{2}{8}$ are equivalent fractions.

Mental Computation

Use double and double again strategy to multiply by 4. For example, $14 \times 4 = ?$ double 14 is 28, then double $28 = 56$.

1 $9 \times 4 =$ ☐

2 $15 \times 4 =$ ☐

3 $5 \times 4 =$ ☐

4 $21 \times 4 =$ ☐

5 $16 \times 4 =$ ☐

6 $30 \times 4 =$ ☐

Guided Practice

Use the number lines at the top of the page to find the equivalent fractions.

7 $\frac{2}{4} = \frac{\square}{2}$

8 $\frac{2}{8} = \frac{1}{\square}$

9 $\frac{\square}{8} = \frac{3}{4}$

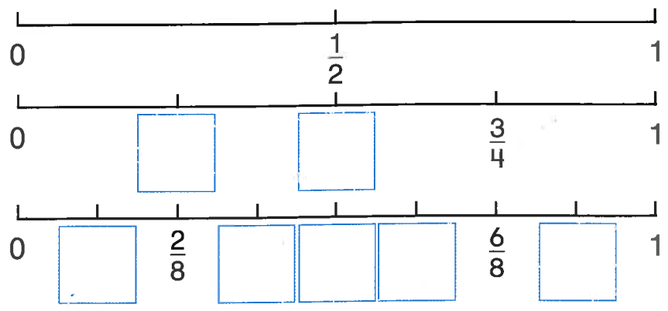
Reasoning

10 Josh, Lisa and Vicki each ate $\frac{1}{2}$ of a pizza. The pizzas were the same size but Josh ate 1 slice, Lisa ate 3 slices and Vicki ate 4 slices. How is this possible?

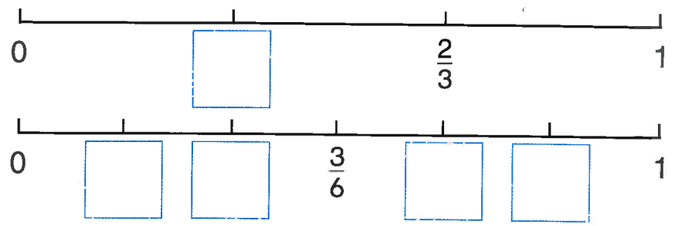
Independent Practice

Complete the number lines.

11



12



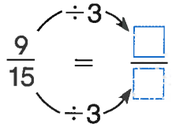
Divide to find the equivalent fractions.

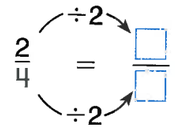
13 $\frac{9}{15} = \frac{\square}{\square}$

14 $\frac{2}{4} = \frac{\square}{\square}$

15 $\frac{10}{10} = \frac{1}{\square}$

16 $\frac{3}{4} = \frac{12}{\square}$





17 $\frac{10}{20} = \frac{\square}{\square}$

18 $\frac{30}{40} = \frac{\square}{\square}$

Problem Solving

19a $\frac{1}{4} = \frac{\square}{\square} + \frac{\square}{\square}$ How many solutions can you find to make this equation true?

b Draw a diagram to explain one of your solutions.

Curriculum link: NA077, NA078