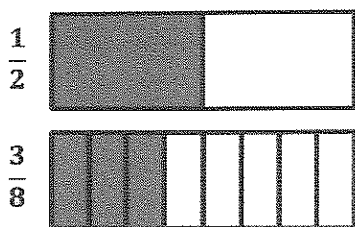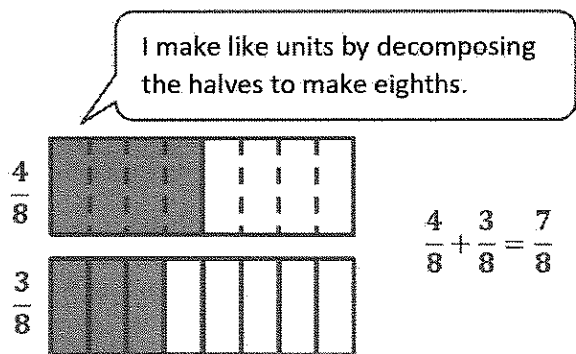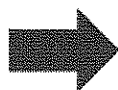## G4-M5-Lesson 20

1. Use a tape diagram to represent each addend. Decompose one of the tape diagrams to make like units. Then, write the complete number sentence.

$\frac{1}{2} + \frac{3}{8}$

> I make like units by decomposing the halves to make eighths.

$\frac{1}{2}$

$\frac{3}{8}$

$\frac{4}{8}$

$\frac{3}{8}$

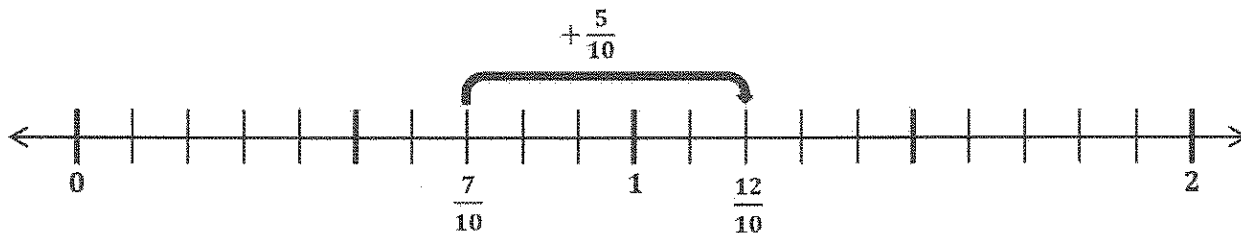$\frac{4}{8} + \frac{3}{8} = \frac{7}{8}$

> I draw tape diagrams to model each addend.

2. Estimate to determine if the sum is between 0 and 1 or 1 and 2. Draw a number line to model the addition. Then, write a complete number sentence.

$\frac{7}{10} + \frac{1}{2}$

> $\frac{7}{10}$ is a little bit more than $\frac{1}{2}$. When I add a fraction that is a little bigger than $\frac{1}{2}$ to $\frac{1}{2}$, I should get a total that is between 1 and 2.

$+\frac{5}{10}$

$0 \qquad \frac{7}{10} \qquad 1 \qquad \frac{12}{10} \qquad 2$

$\frac{7}{10} + \frac{5}{10} = \frac{12}{10}$

> To make like units in order to add, I decompose halves. The number line and the number sentence show the total, $\frac{12}{10}$, which is between 1 and 2.

3. Solve the following addition problem without drawing a model. Show your work.

$$\frac{2}{3} + \frac{1}{9}$$

$$\frac{2}{3} = \frac{2 \times 3}{3 \times 3} = \frac{6}{9}$$

> I can decompose thirds to make ninths by multiplying the numerator and denominator of $\frac{2}{3}$ by 3.

$$\frac{6}{9} + \frac{1}{9} = \frac{7}{9}$$

> Now, I have like units, ninths, and I can add.

Lesson 20: Use visual models to add two fractions with related units using the denominators 2, 3, 4, 5, 6, 8, 10, and 12.

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MATH