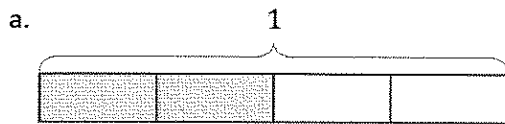


G4-M5-Lesson 3

1. Decompose each fraction modeled by a tape diagram as a sum of unit fractions. Write the equivalent multiplication sentence.

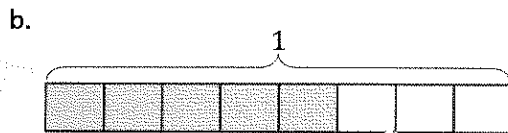


$$\frac{2}{4} = \frac{1}{4} + \frac{1}{4}$$

$$\frac{2}{4} = 2 \times \frac{1}{4}$$

There are 2 copies of $\frac{1}{4}$ shaded, so I write $2 \times \frac{1}{4}$.

I can multiply fourths like I multiply any other unit. 1 banana times 2 is 2 bananas and 1 ten times 2 is 2 tens, so 1 fourth times 2 is 2 fourths.

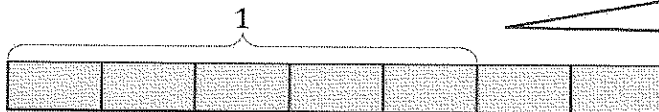


$$\frac{5}{8} = \frac{1}{8} + \frac{1}{8} + \frac{1}{8} + \frac{1}{8} + \frac{1}{8}$$

$$\frac{5}{8} = 5 \times \frac{1}{8}$$

I can add 1 eighth 5 times. Whew! That's a lot of writing! Or I can multiply to show 5 copies of $\frac{1}{8}$.

2. The tape diagram models a fraction greater than 1. Write the fraction greater than 1 as the sum of two products.

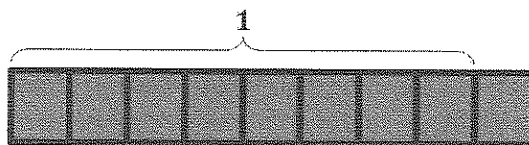


This bracket identifies the whole. This tape diagram models a fraction greater than 1.

$$\frac{7}{5} = \left(5 \times \frac{1}{5}\right) + \left(2 \times \frac{1}{5}\right)$$

I see in the tape diagram that $\frac{7}{5}$ is the same as $1\frac{2}{5}$. I can use the distributive property to express the whole part and the fractional part as 2 different multiplication expressions.

3. Draw a tape diagram to model $\frac{9}{8}$. Record the decomposition of $\frac{9}{8}$ into unit fractions as a multiplication sentence.



$$\frac{9}{8} = 9 \times \frac{1}{8}$$