

I can model division of fractions visually and use this technique to assist in real-world situations.

Visually Representing the Division of Fractions

REAL-WORLD EXAMPLE

Bill wanted to order pizza for his son's graduation party. He decided to order 4 pizzas and estimated each person would eat about $\frac{1}{6}$ of a pizza. If Bill was planning on about 30 people, will this be enough pizza?

Visually

Operationally

Build Visual Models to Represent the Following Quotients.

a. $\frac{8}{9} \div \frac{2}{9}$



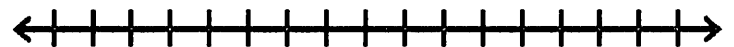
b. $\frac{15}{6} \div \frac{5}{6}$



c. $\frac{7}{3} \div \frac{2}{3}$



d. $\frac{11}{4} \div \frac{5}{4}$



1. $\frac{11}{8} \div \frac{3}{4}$



2. $\frac{5}{4} \div \frac{1}{3}$



3. $4 \div \frac{3}{4}$

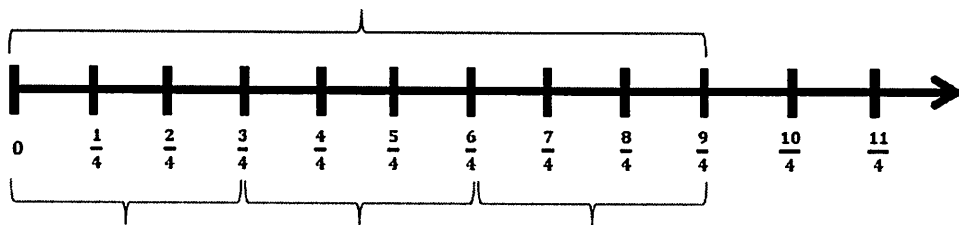


4. $2\frac{1}{2} \div \frac{3}{5}$



Determine the Division Expression that is represented by the model. Then find the Quotient.

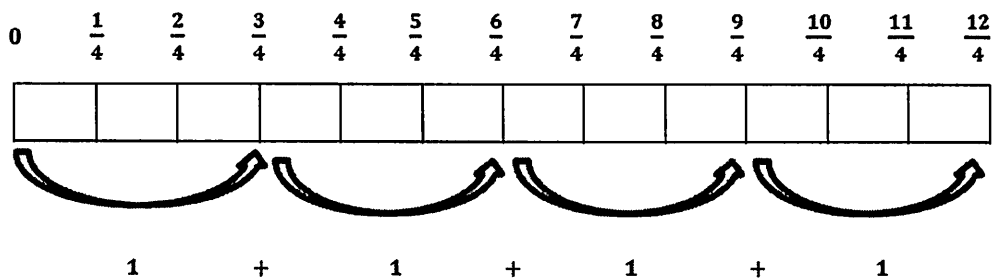
1.



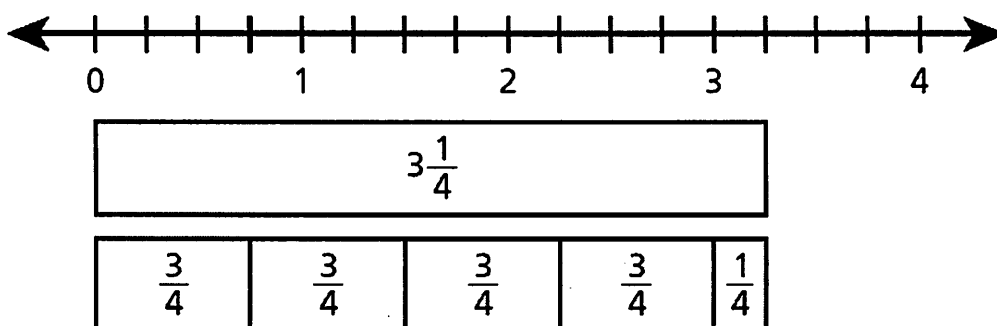
2.



3.



4.



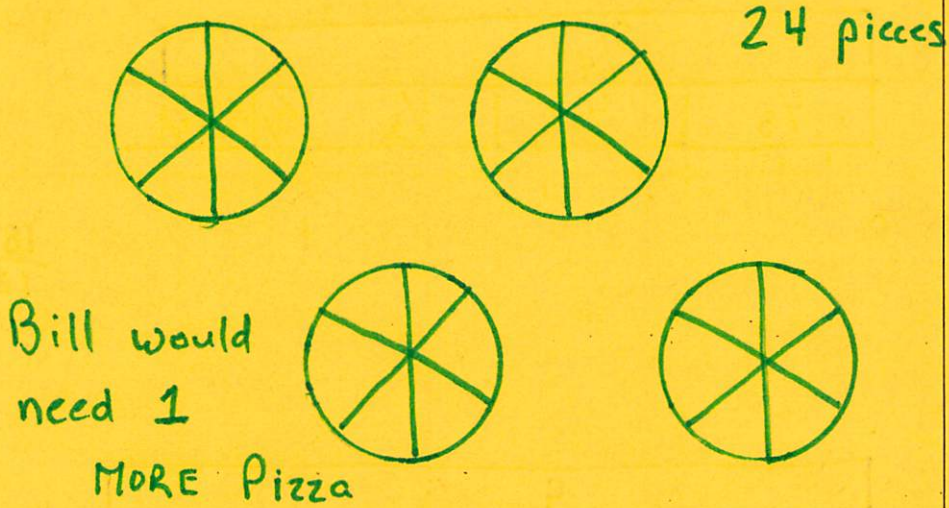
I can model division of fractions visually and use this technique to assist in real-world situations.

Visually Representing the Division of Fractions

REAL-WORLD EXAMPLE

Bill wanted to order pizza for his son's graduation party. He decided to order 4 pizzas and estimated each person would eat about $\frac{1}{6}$ of a pizza. If Bill was planning on about 30 people, will this be enough pizza?

Visually



Operationally

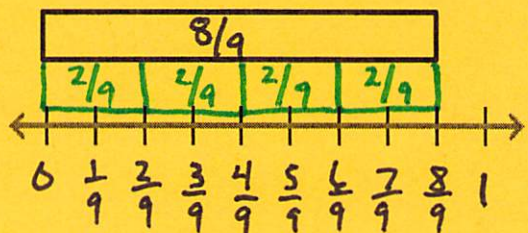
$$4 \div \frac{1}{6}$$

$$\frac{4}{1} \cdot \frac{6}{1} = \frac{24}{1}$$

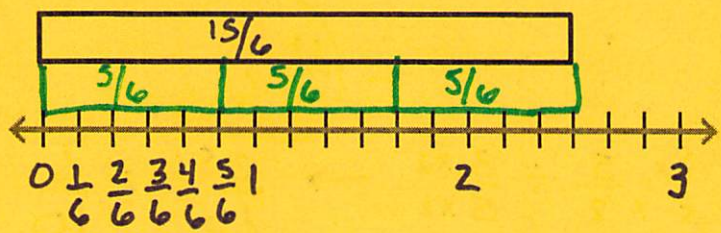
24 pieces

Build Visual Models to Represent the Following Quotients.

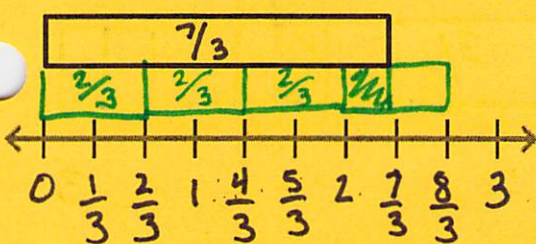
a. $\frac{8}{9} \div \frac{2}{9} = 4$



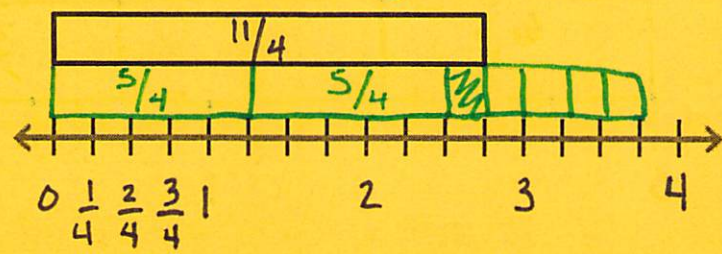
b. $\frac{15}{6} \div \frac{5}{6} = 3$



c. $\frac{7}{3} \div \frac{2}{3} = 3 \frac{1}{2}$



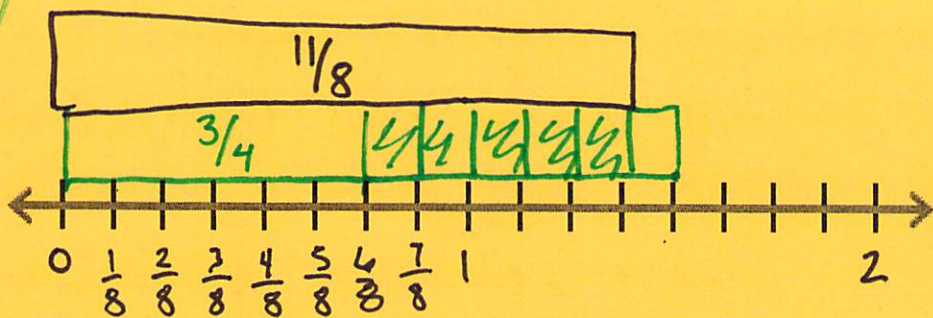
d. $\frac{11}{4} \div \frac{5}{4} = 2 \frac{1}{2}$



$$1. \quad \frac{11}{8} \div \frac{3}{4} = 1\frac{5}{6}$$

$$\downarrow \quad \downarrow$$

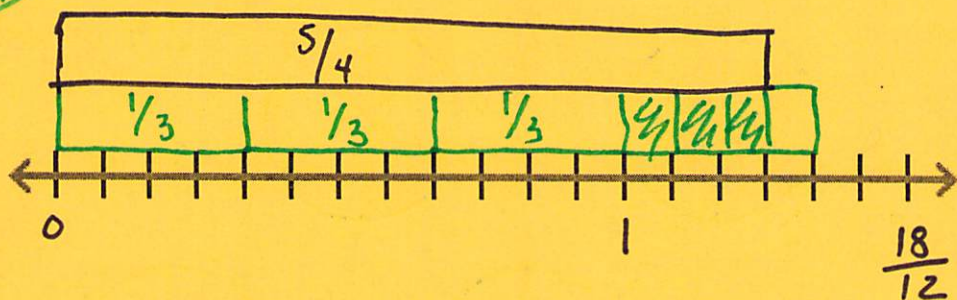
$$\frac{11}{8} \div \frac{6}{8}$$



$$2. \quad \frac{3 \times 5}{3 \times 4} \div \frac{1 \times 4}{3 \times 4} = 3\frac{3}{4}$$

$$\downarrow$$

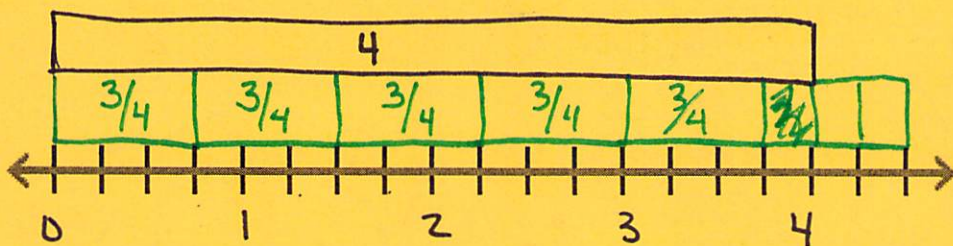
$$\frac{15}{12} \div \frac{4}{12}$$



$$3. \quad 4 \div \frac{3}{4} = 5\frac{1}{3}$$

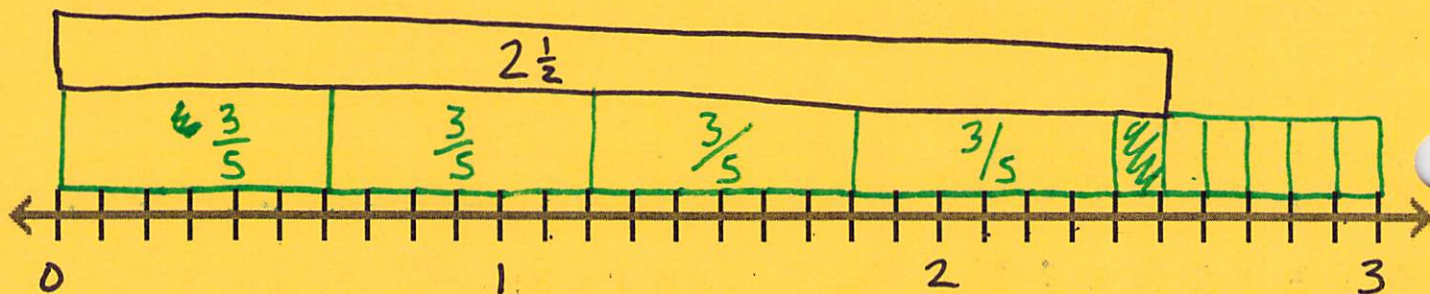
$$\downarrow$$

$$\frac{16}{4} \div \frac{3}{4}$$



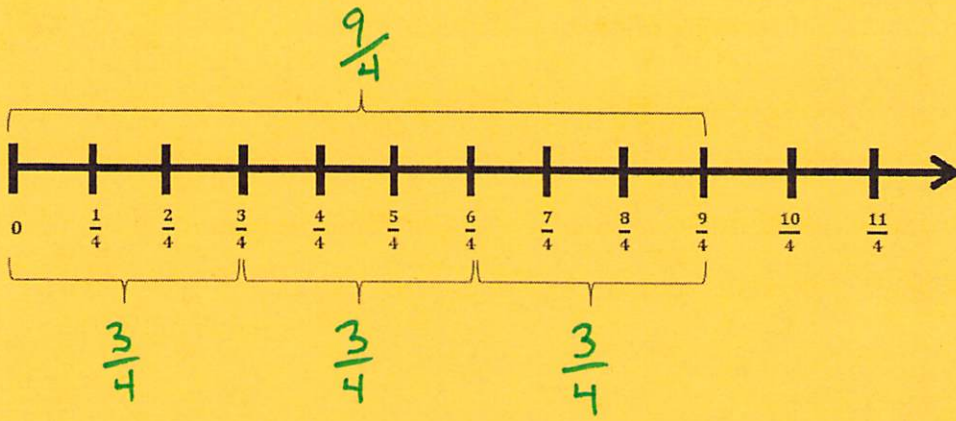
$$4. \quad 2\frac{1}{2} \div \frac{3}{5} = 4\frac{1}{6}$$

$$\frac{5 \times 5}{5 \times 2} \div \frac{3 \times 2}{5 \times 2} \rightarrow \frac{25}{10} \div \frac{6}{10}$$



Determine the Division Expression that is represented by the model. Then find the Quotient.

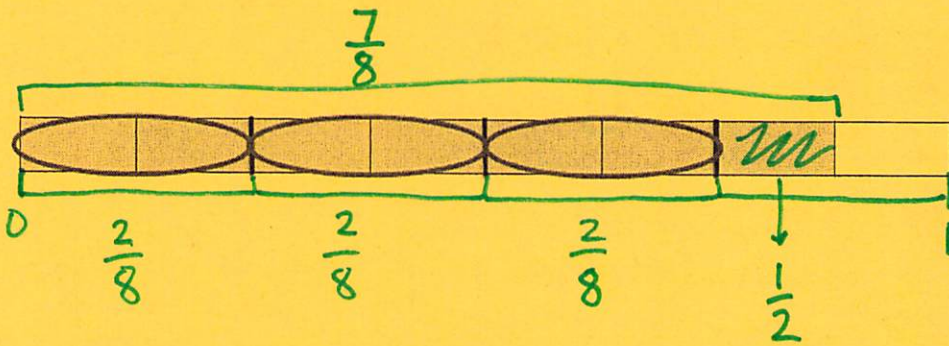
1.



$$\frac{9}{4} \div \frac{3}{4}$$

$$3 \frac{9}{4} \cdot \frac{4}{3} = \frac{3}{1} = \textcircled{3}$$

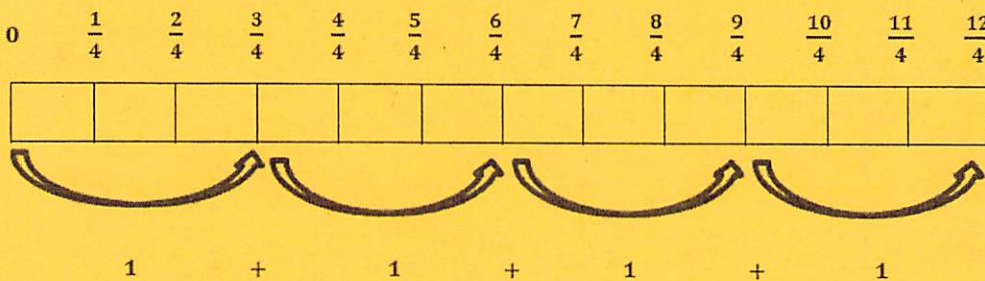
2.



$$\frac{7}{8} \div \frac{2}{8}$$

$$1 \frac{7}{8} \cdot \frac{8}{2} = \frac{7}{2} = \textcircled{3\frac{1}{2}}$$

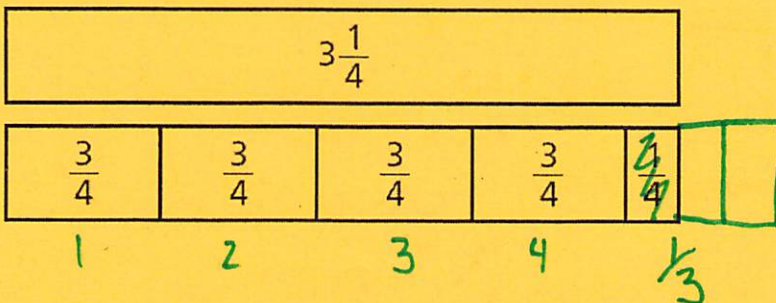
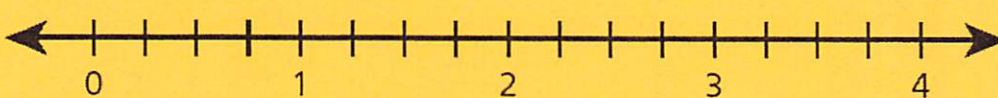
3.



$$\frac{12}{4} \div \frac{3}{4}$$

$$4 \frac{12}{4} \cdot \frac{4}{3} = \frac{4}{1} = \textcircled{4}$$

4.



$$3\frac{1}{4} \div \frac{3}{4}$$

$$\frac{13}{4} \div \frac{3}{4}$$

$$1 \frac{13}{4} \cdot \frac{4}{3} = \frac{13}{3} = \textcircled{4\frac{1}{3}}$$