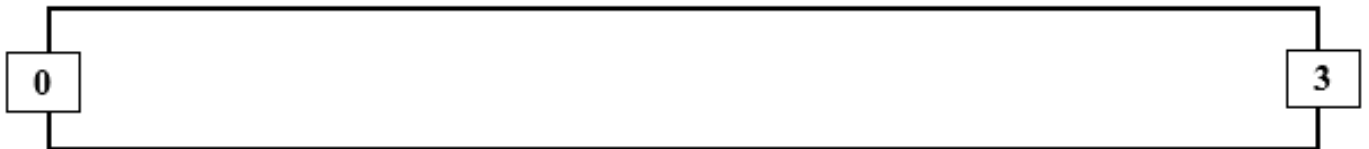
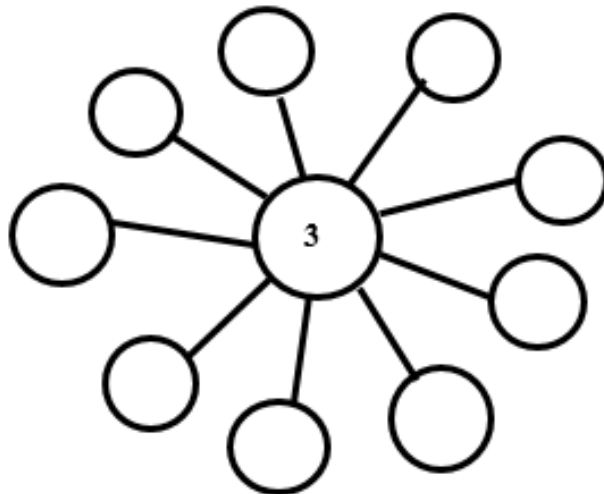


Five Functions of Fractions
NCTM Presentation Handouts 2016
Claudia Bertolone-Smith

Work with your team to divide this ruler into 9 equal parts. Write the correct fractions on the lines you make.



Decompose 3 into nine equal pieces.



Addition Sentence: _____

Multiplication Sentence: _____

Lesson 12: Independent Work

Race Organizer: _____

Planning a Race

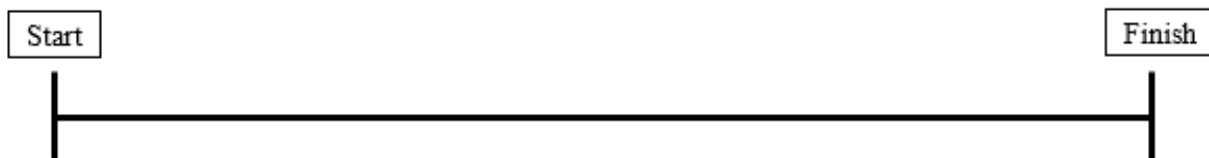
The middle school thought the race was so awesome, they want to sponsor one too. The fourth graders are in charge (again) of setting up spots along the race for water, and different snacks.

The middle school is very specific about where they want the water and snacks:

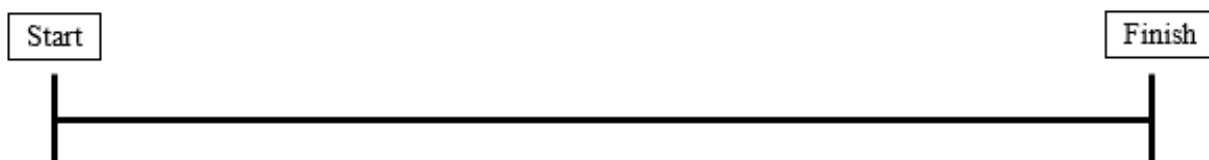
1. At $\frac{1}{8}$ and $\frac{5}{8}$ will be Gatorade
2. At $\frac{1}{3}$ and $\frac{2}{3}$ of the through the race they want to have potato chips.
3. At $\frac{1}{2}$ and $\frac{3}{4}$ of the way through the race they want to have people cheering on runners.



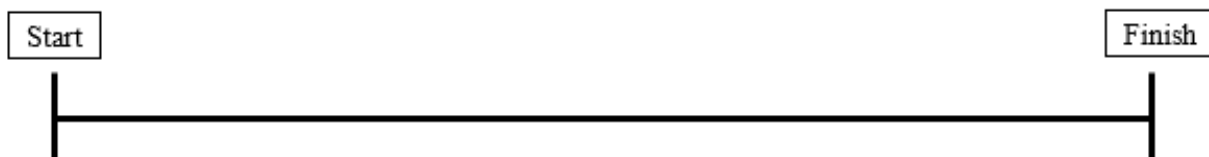
Race Ruler for thirds:



Race Ruler for halves, fourths, and eighths:

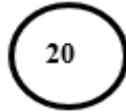


Final Race Plan:



Using number bonds to operate with fractions.

Divide 20 into 2 equal groups.



$$\frac{1}{2} \text{ of } 20 = \underline{\hspace{2cm}}$$

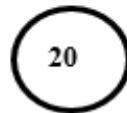
Divide 20 into 5 equal groups.



$$\frac{1}{5} \text{ of } 20 = \underline{\hspace{2cm}}$$

$$\frac{2}{5} \text{ of } 20 = \underline{\hspace{2cm}}$$

Divide 20 into 10 equal groups.



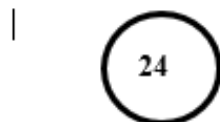
$$\frac{1}{10} \text{ of } 20 = \underline{\hspace{2cm}}$$

$$\frac{9}{10} \text{ of } 20 = \underline{\hspace{2cm}}$$

Name: _____

Using number bonds to operate with fractions.

Break up 24 into 6 equal groups.



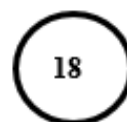
$3/6 \text{ of } 24 = \underline{\hspace{2cm}}$

$4/6 \text{ of } 24 = \underline{\hspace{2cm}}$

$5/6 \text{ of } 24 = \underline{\hspace{2cm}}$

$7/6 \text{ of } 24 = \underline{\hspace{2cm}}$

Break up 18 into 3 equal groups.



$1/3 \text{ of } 18 = \underline{\hspace{2cm}}$

$2/3 \text{ of } 18 = \underline{\hspace{2cm}}$

$3/3 \text{ of } 18 = \underline{\hspace{2cm}}$

$4/3 \text{ of } 18 = \underline{\hspace{2cm}}$

Divide 100 into 10 equal groups.



$1/10 \text{ of } 100 = \underline{\hspace{2cm}}$

$9/10 \text{ of } 100 = \underline{\hspace{2cm}}$

$5/10 \text{ of } 100 = \underline{\hspace{2cm}}$

$11/10 \text{ of } 100 = \underline{\hspace{2cm}}$

