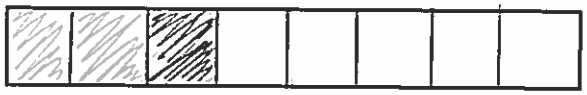
Name _____ Date _____

Learning Target: I will name fractions on a number line. 4th Grade - Readiness Standard 5 - 3.NF.1 - Form A

1. We Do Together: Draw, label and tell.

Draw eight equal parts and shade 3	**Label** the numerator or denominator of the fraction
	$\frac{3}{8}$ ← numerator

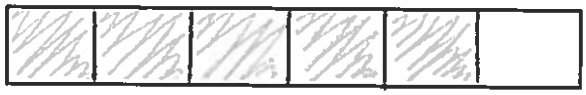
Tell

How many unshaded parts make up the whole rectangle? 5

What fractional part of the rectangle appears to be shaded? $\frac{3}{8}$ Unshaded? $\frac{5}{8}$

2. Reflect: What questions do you have about naming fractions on a number line?

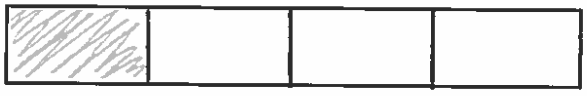
3. You Do Together: Draw, label and write.

Draw six equal parts and shade 5	**Label** the numerator or denominator of the fraction
	$\frac{5}{6}$ ← denominator

Tell

How many unshaded parts make up the whole rectangle? 1

What fractional part of the rectangle appears to be shaded? $\frac{5}{6}$ Unshaded? $\frac{1}{6}$

Draw four equal parts and shade 1	**Label** the numerator or denominator of the fraction
	$\frac{1}{4}$ ← numerator

Tell

How many unshaded parts make up the whole rectangle? 3

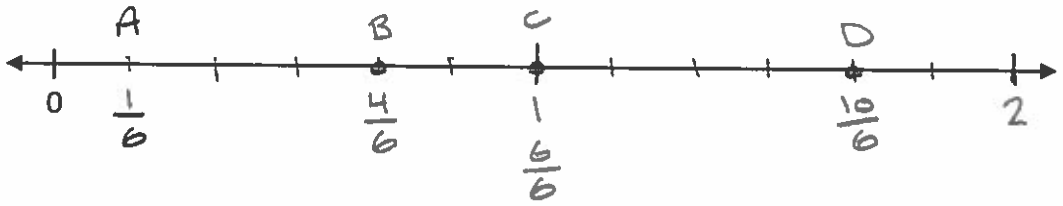
What fractional part of the rectangle appears to be shaded? $\frac{1}{4}$ Unshaded? $\frac{3}{4}$

Name _____ Date _____

Learning Target: I will name fractions on a number line. 4th Grade - Readiness Standard 6 - 3.NF.2 - Form A

1. **We Do Together:** Draw, label and write.

Draw and label sixths from zero to two



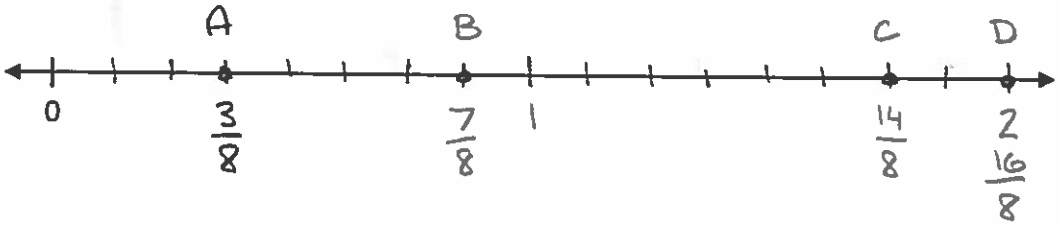
Place and label points each location on the number line

A = one-sixth B = four-sixths C = six-sixths D = ten-sixths

2. **Reflect:** What questions do you have about naming fractions on a number line?

3. **You Do Together:** Draw, label and write.

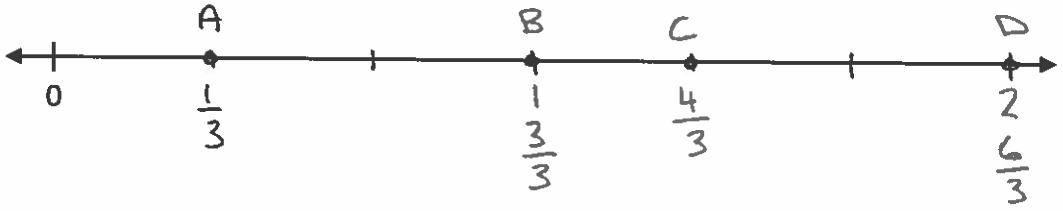
Draw and label eighths from zero to two



Place and label points each location on the number line

A = three-eighths B = seven-eighths C = fourteen-eighths D = sixteen-eighths

Draw and label thirds from zero to two



Place and label points each location on the number line

A = one-third B = three-thirds C = four-thirds D = six-thirds

Name _____ Date _____

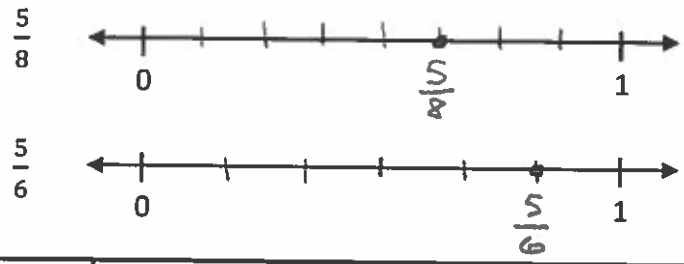
Learning Target: I will compare fractions with the same numerator or same denominator

4th Grade - Readiness Standard 7 - 3.NF.3d - Form A

< or > *Less Than* *Greater Than*

1. We Do Together: Draw, compare and tell.

Draw each point on a number line



Compare using > or <

$\frac{5}{8} < \frac{5}{6}$

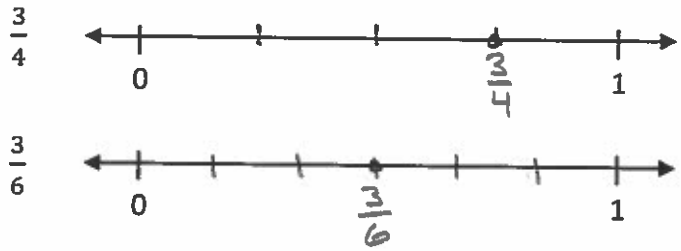
Tell how you could compare without a drawing

Both have 5 parts from the same size whole and 8ths are smaller than 6ths

2. Reflect: What questions do you have about comparing fractions?

3. You Do Together: Draw, compare and tell.

Draw each point on a number line



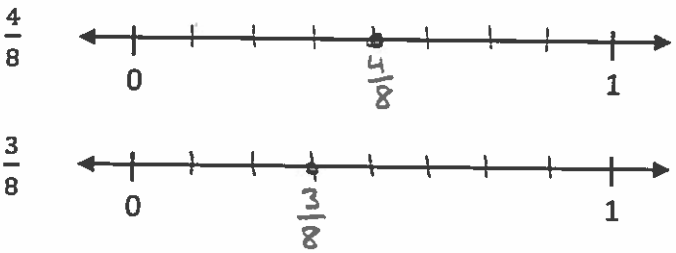
Compare using > or <

$\frac{3}{4} > \frac{3}{6}$

Tell how you could compare without a drawing

Both have 3 parts from the same size whole and 4ths are bigger than 6ths

Draw each point on a number line



Compare using > or <

$\frac{4}{8} > \frac{3}{8}$

Tell how you could compare without a drawing

Both have parts that are the same size and 4 parts are more than 3 parts

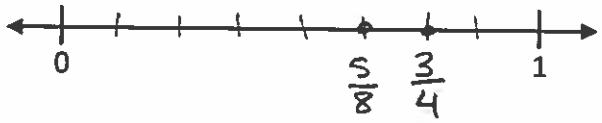
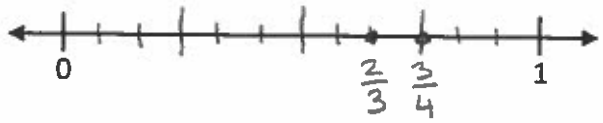
Name _____ Date _____

Learning Target: I will compare fractions with different numerators and different denominators

5th Grade - Readiness Standard 3 - 4.NF.2 - Form A

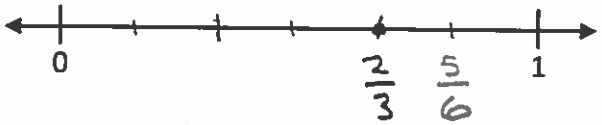
1. We Do Together: Rename, plot and compare.

< *Less Than* or > *Greater Than*

One denominator is a multiple of the other.	One denominator is NOT a multiple of the other.
Rename one fraction to create common denominators $\frac{3}{4} = \frac{3 \cdot 2}{4 \cdot 2} = \frac{6}{8}$ $\quad \frac{5}{8}$	**Rename** each fraction to create common denominators $\frac{2}{3} = \frac{2 \cdot 4}{3 \cdot 4} = \frac{8}{12}$ $\quad \frac{3}{4} = \frac{3 \cdot 3}{4 \cdot 3} = \frac{9}{12}$
Label each point on the number line 	**Label** each point on the number line 
Compare using > or < $\frac{3}{4} > \frac{5}{8}$	**Compare** using > or < $\frac{2}{3} < \frac{3}{4}$

2. Reflect: What questions do you have about comparing fractions?

3. You Do Together: Draw, compare and write.

One denominator is a multiple of the other.	One denominator is NOT a multiple of the other.
Rename one fraction to create common denominators $\frac{2}{3} = \frac{2 \cdot 2}{3 \cdot 2} = \frac{4}{6}$ $\quad \frac{5}{6}$	**Rename** each fraction to create common denominators $\frac{1}{3} = \frac{1 \cdot 4}{3 \cdot 4} = \frac{4}{12}$ $\quad \frac{1}{4} = \frac{1 \cdot 3}{4 \cdot 3} = \frac{3}{12}$
Label each point on the number line 	**Label** each point on the number line 
Compare using > or < $\frac{2}{3} < \frac{5}{6}$	**Compare** using > or < $\frac{1}{3} > \frac{1}{4}$

Name _____ Date _____

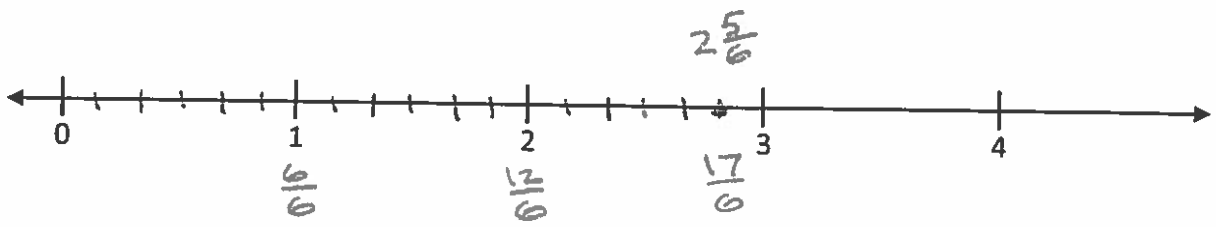
Learning Target: I will convert between improper fractions and mixed numbers

5th Grade - Readiness Standard 4 - 4.NF.3b - Form A

1. We Do Together: Draw, tell and write.

Draw and label the improper fraction on the number line

$\frac{17}{6}$



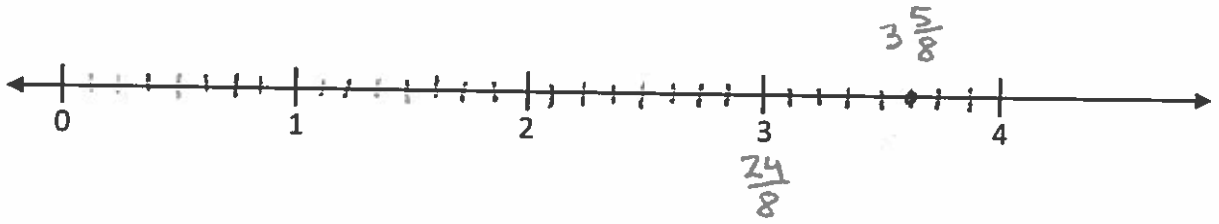
Tell how many wholes you see and the equivalent number of 6ths	**Tell** the part of the whole	**Write** the equivalent mixed number
$\frac{2}{}$ Wholes = $\frac{12}{6}$	$\frac{5}{6}$	$\frac{17}{6} = 2\frac{5}{6}$

2. Reflect: What questions do you have about converting between improper fractions and mixed numbers?

3. You Do Together: Draw, tell and write.

Draw and label the mixed number on the number line

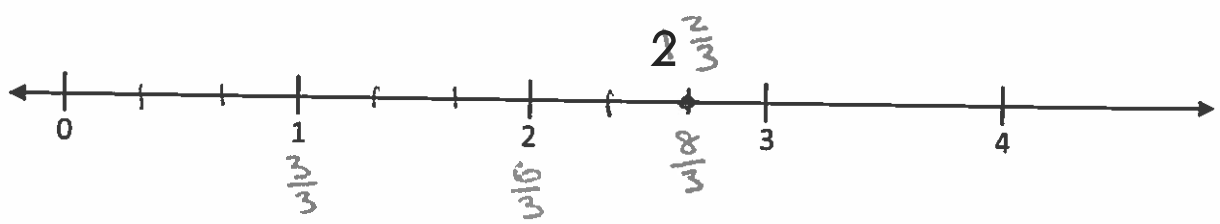
$3\frac{5}{8}$



Tell how many 8ths equals 3 wholes	**Tell** the part of the whole	**Write** the equivalent improper fraction
3 Wholes = $\frac{24}{8}$	$\frac{5}{8}$	$3\frac{5}{8} = \frac{29}{8}$

Draw and label the improper fraction on the number line

$\frac{8}{3}$



Tell how many wholes you see and the equivalent number of 3rds	**Tell** the part of the whole	**Write** the equivalent mixed number
$\frac{2}{}$ Wholes = $\frac{6}{3}$	$\frac{2}{3}$	$\frac{8}{3} = 2\frac{2}{3}$

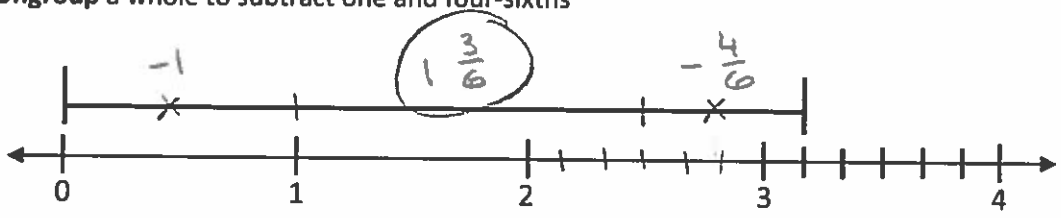
Name _____ Date _____

Learning Target: I will add and subtract mixed numbers with like denominators

5th Grade - Readiness Standard 5 - 4.NF.3c - Form A

1. We Do Together: Draw, ungroup and show.

Ungroup a whole to subtract one and four-sixths



Show how you subtracted

$2\frac{7}{6}$

~~$3\frac{1}{6}$~~

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

$1\frac{3}{6}$ or $1\frac{1}{2}$

$\frac{3 \cdot 1}{3 \cdot 2} = \frac{1}{2}$

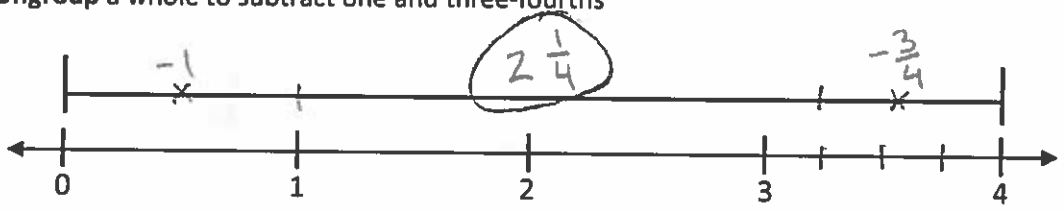
Tell what you ungrouped and the equivalent mixed number

1 Whole = $\frac{6}{6}$ $\quad 3\frac{1}{6} = 2\frac{7}{6}$

2. Reflect: What questions do you have about subtracting mixed numbers?

3. You Do Together: Draw, tell and show.

Ungroup a whole to subtract one and three-fourths



Show how you subtracted

$3\frac{4}{4}$

~~4~~

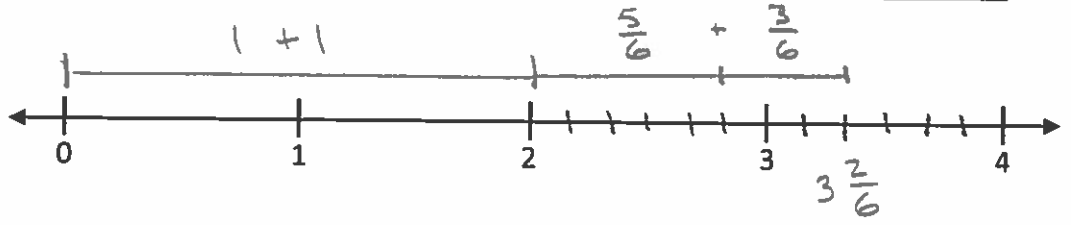
$-\ 1\frac{3}{4}$

$2\frac{1}{4}$

Tell what you ungrouped and the equivalent mixed number

1 Whole = $\frac{4}{4}$ $\quad 4\frac{0}{4} = 3\frac{4}{4}$

Draw one and five-sixths plus one and three-sixths by <u>adding the whole numbers first</u>



Show how you added

$1\frac{5}{6}$

$+\ 1\frac{3}{6}$

$2\frac{8}{6} = 3\frac{2}{6}$

or $3\frac{1}{3}$

$\frac{2 \cdot 1}{2 \cdot 3} = \frac{1}{3}$

Tell what you grouped and the equivalent mixed number

$\frac{6}{6}$ = 1 Whole $\quad \frac{5}{6} + \frac{3}{6} = \frac{8}{6} = 1\frac{2}{6}$

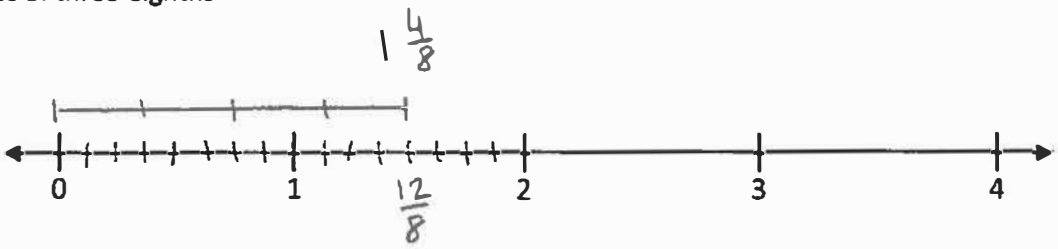
Name _____ Date _____

Learning Target: I will multiply a whole number by a fraction 5th Grade - Readiness Standard 6 - 4.NF.4b - Form A

1. We Do Together: Draw, add and multiply.

Draw four groups of three-eighths

$4 \times \frac{3}{8}$



Add to find the total

$$4 \times \frac{3}{8} = \frac{3}{8} + \frac{3}{8} + \frac{3}{8} + \frac{3}{8} = \frac{12}{8}$$

Multiply to find the total as a mixed number

$$\frac{4}{1} \times \frac{3}{8} = \frac{12}{8} = 1\frac{4}{8} \text{ or } 1\frac{1}{2}$$

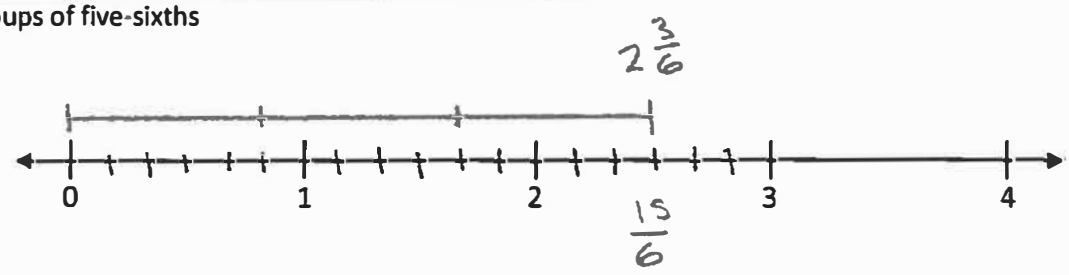
$\frac{4 \cdot 1}{4 \cdot 2} = \frac{1}{2}$

2. Reflect: What questions do you have about multiplying a whole number by a fraction?

3. You Do Together: Draw, add and multiply.

Draw three groups of five-sixths

$3 \times \frac{5}{6}$



Add to find the total

$$3 \times \frac{5}{6} = \frac{5}{6} + \frac{5}{6} + \frac{5}{6} = \frac{15}{6}$$

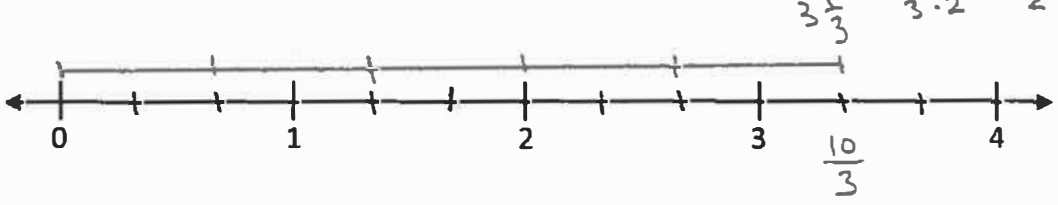
Multiply to find the total as a mixed number

$$\frac{3}{1} \times \frac{5}{6} = \frac{15}{6} = 2\frac{3}{6} \text{ or } 2\frac{1}{2}$$

Draw five groups of two-thirds

$5 \times \frac{2}{3}$

$\frac{3 \cdot 1}{3 \cdot 2} = \frac{1}{2}$



Add to find the total

$$5 \times \frac{2}{3} = \frac{2}{3} + \frac{2}{3} + \frac{2}{3} + \frac{2}{3} + \frac{2}{3} = \frac{10}{3}$$

Multiply to find the total as a mixed number

$$\frac{5}{1} \times \frac{2}{3} = \frac{10}{3} = 3\frac{1}{3}$$

Name _____ Date _____

Learning Target: I will add and subtract mixed numbers with different denominators

6th Grade - Readiness Standard 4 - 5.NF.1 - Form A

1. We Do Together: Rewrite, draw, tell and show.

Rewrite using common denominators

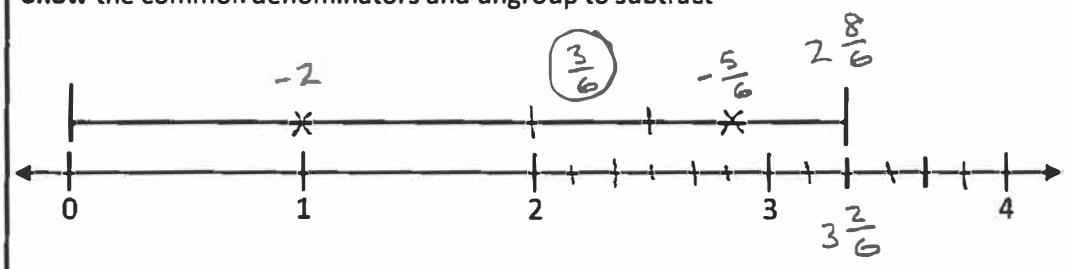
$3\frac{1}{3}$ (×2) $= 3\frac{2}{6}$ or $2\frac{8}{6}$

$-\ 1\frac{5}{6} = -\ 1\frac{5}{6}$

$\frac{3}{6}$ or $\frac{1}{2}$

$\frac{3\cdot1}{3\cdot2}$

Show the common denominators and ungroup to subtract



Tell what you ungrouped and the equivalent mixed number

1 Whole = $\frac{6}{6}$ $\quad 3\frac{2}{6} = 2\frac{8}{6}$

Show your thinking using numbers and symbols in the box to the far left

2. Reflect: What questions do you have about subtracting mixed numbers?

3. You Do Together: Rewrite, draw, tell and show.

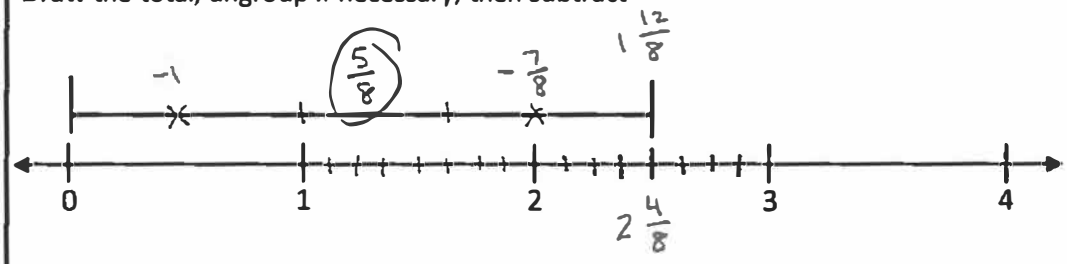
Rewrite using common denominators

$2\frac{1}{2}$ (×4) $= 2\frac{4}{8}$ or $1\frac{12}{8}$

$-\ 1\frac{7}{8} = -\ 1\frac{7}{8}$

$\frac{5}{8}$

Draw the total, ungroup if necessary, then subtract



Tell what you ungrouped and the equivalent mixed number

1 Whole = $\frac{8}{8}$ $\quad 2\frac{4}{8} = 1\frac{12}{8}$

Show your thinking using numbers and symbols in the box to the far left

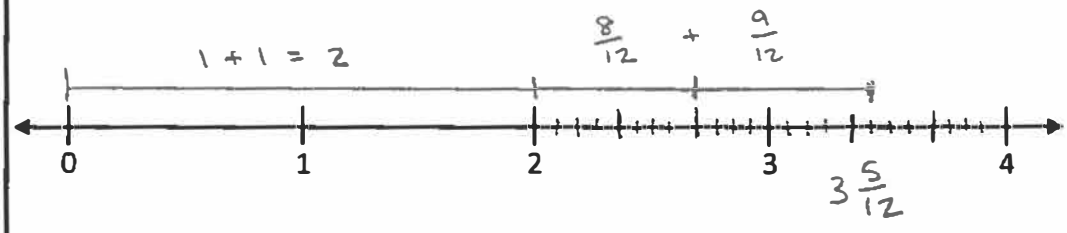
Rewrite using common denominators

$1\frac{2}{3}$ (×4) $= 1\frac{8}{12}$

$+\ 1\frac{3}{4}$ (×3) $= 1\frac{9}{12}$

$2\frac{17}{12}$ or $3\frac{5}{12}$

Draw the total by adding the whole numbers first



Tell what you grouped and the equivalent mixed number

1 Whole = $\frac{12}{12}$ $\quad \frac{8}{12} + \frac{9}{12} = \frac{17}{12} = 1\frac{5}{12}$

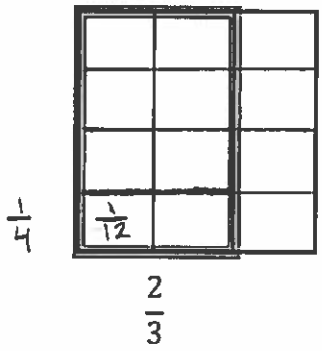
Show your thinking using numbers and symbols in the box to the far left

Name _____ Date _____

Learning Target: I will multiply a whole number by a fraction 6th Grade - Readiness Standard 5 - 5.NF.4b - Form A

1. We Do Together: Draw, identify and multiply.

Draw 1-fourth of 2-thirds of the whole



Identify the size of 1-fourth of the 2-thirds

1-fourth of 2-thirds is $\frac{2}{12}$ of the whole

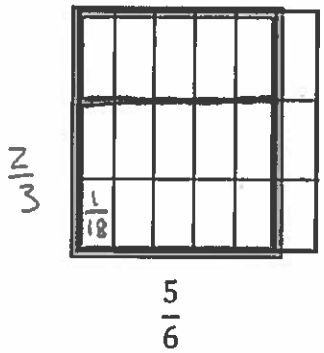
Multiply numerators and denominators, then simplify

$$\frac{1}{4} \times \frac{2}{3} = \frac{2}{12} = \frac{2 \cdot 1}{2 \cdot 6} = \frac{1}{6}$$

2. Reflect: What questions do you have about multiplying a whole number by a fraction?

3. You Do Together: Draw, identify and multiply.

Draw 2-thirds of 5-sixths of the whole



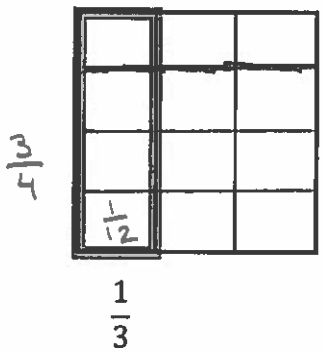
Identify the size of 2-thirds of the 5-sixths

2-thirds of 5-sixths is $\frac{10}{18}$ of the whole

Multiply numerators and denominators, then simplify

$$\frac{2}{3} \times \frac{5}{6} = \frac{10}{18} = \frac{2 \cdot 5}{2 \cdot 9} = \frac{5}{9}$$

Draw 3-fourths of 1-third of the whole



Identify the size of 3-fourths of the 1-third

3-fourths of 1-third is $\frac{3}{12}$ of the whole

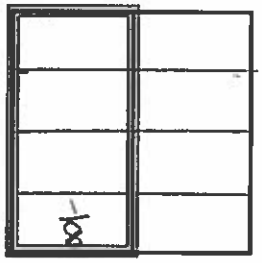
Multiply numerators and denominators, then simplify

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

Name _____ Date _____

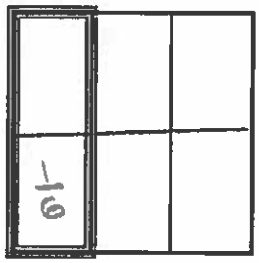
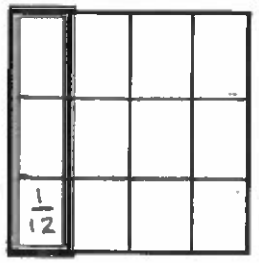
Learning Target: I will divide a unit fraction by a whole number 6th Grade - Readiness Standard 6 - 5.NF.7a - Form A

1. We Do Together: Divide, identify, think multiply to divide and share.

Divide 1-half of the whole into 4 equal parts	**Identify** the size of each part	**Think** multiply to divide
 $\frac{1}{2}$	$\frac{1}{2} \div 4 = \frac{1}{8}$	$\frac{1}{2} \times \frac{1}{4} = \frac{1}{8}$
	Share how 4 is related to $\frac{1}{4}$ $\frac{1}{4}$ is the reciprocal of 4 or $\frac{4}{1}$	

2. Reflect: What questions do you have about dividing a unit fraction by a whole number?

3. You Do Together: Divide, identify, think multiply to divide and share.

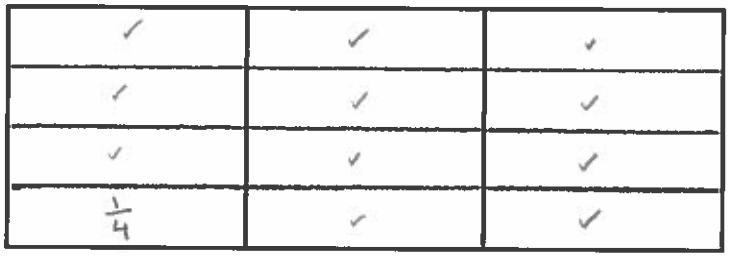
Divide 1-third of the whole into 2 equal parts	**Identify** the size of each part	**Think** multiply to divide
 $\frac{1}{3}$	$\frac{1}{3} \div 2 = \frac{1}{6}$	$\frac{1}{3} \times \frac{1}{2} = \frac{1}{6}$
	Share how 2 is related to $\frac{1}{2}$ $\frac{1}{2}$ is the reciprocal of 2 or $\frac{2}{1}$	
Divide 1-fourth of the whole into 3 equal parts	**Identify** the size of each part	**Think** multiply to divide
 $\frac{1}{4}$	$\frac{1}{4} \div 3 = \frac{1}{12}$	$\frac{1}{4} \times \frac{1}{3} = \frac{1}{12}$
	Share how 3 is related to $\frac{1}{3}$ $\frac{1}{3}$ is the reciprocal of 3 or $\frac{3}{1}$	

Name _____ Date _____

Learning Target: I will divide a whole number by a unit fraction 6th Grade - Readiness Standard 7 - 5.NF.7b - Form A

1. We Do Together: Divide, identify and think multiply to divide.

Each squares to represent 1 whole. **Divide** the 3 wholes into equal parts of 1-fourth



Identify how many 1-fourths are in 3 wholes

$3 \div \frac{1}{4} = 12$

Think multiply to divide

$3 \times 4 = 12$

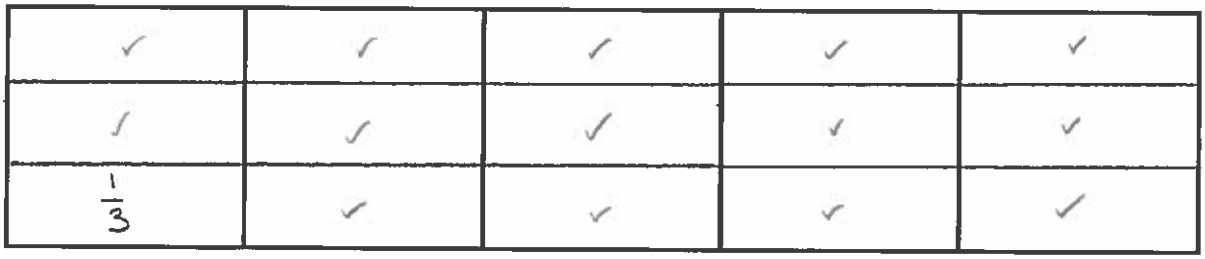
Share how $\frac{1}{4}$ is related to 4

4 is the reciprocal of $\frac{1}{4}$

2. Reflect: What questions do you have about dividing a whole number by a unit fraction?

3. You Do Together: Divide, identify and think multiply to divide.

Each squares to represent 1 whole. **Divide** the 5 wholes into equal parts of 1-third



Identify how many 1-thirds are in 5 wholes

$5 \div \frac{1}{3} = 15$

Think multiply to divide

$5 \times 3 = 15$

Share how $\frac{1}{3}$ is related to 3

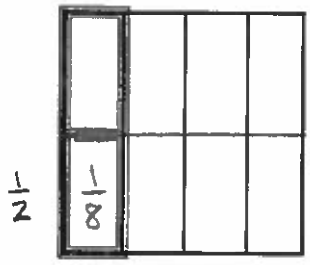
3 is the reciprocal of $\frac{1}{3}$

DELTA MATH Name _____ Date _____

Learning Target: I will multiply and divide fractions

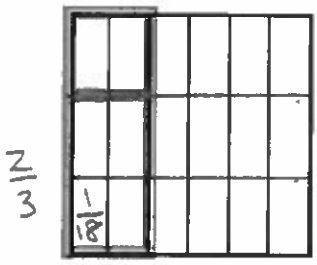
7th Grade - Readiness Standard 1 - 6.NS.1 - Form A

1. We Do Together: Label, multiply, divide and think multiply to divide.

Draw 1-half of 1-fourth of the whole	**Draw** to find how many 1-fourths are in 1-half
	
Multiply to find the size of each fractional part	**Write** the number of groups and think multiply to divide
$\frac{1}{2} \times \frac{1}{4} = \frac{1}{8}$	$\frac{1}{2} \div \frac{1}{4} = 2$ $\frac{1}{2} \times \frac{4}{1} = \frac{4}{2} = \frac{2 \cdot 2}{2 \cdot 1} = 2$

2. Reflect: What questions do you have about multiplying and dividing fractions?

3. You Do Together: Label, multiply, divide and think multiply to divide.

Draw 2-thirds of 2-sixths of the whole	**Draw** to find how many 2-sixths are in 2-thirds
	
Multiply to find the size of each fractional part	**Write** the number of groups and think multiply to divide
$\frac{2}{3} \times \frac{2}{6} = \frac{4}{18} = \frac{2 \cdot 2}{2 \cdot 9} = \frac{2}{9}$	$\frac{2}{3} \div \frac{2}{6} = 2$ $\frac{2}{3} \times \frac{6}{2} = \frac{12}{6} = \frac{6 \cdot 2}{6 \cdot 1} = 2$