Warm up Grade 6

Date: _____

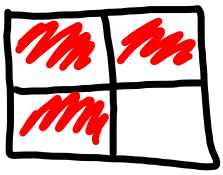
Chapter 5

Lesson 1 Day 1

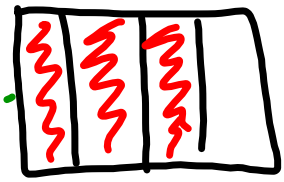
Draw each fraction in a square

$\frac{3}{4}$ ← Shade

4 ← cut your whole square into

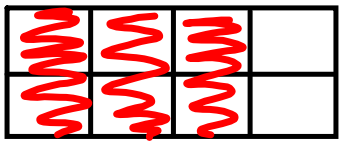


or



Shade $\frac{3}{4}$ in the following rectangle

$\frac{3}{4} \overset{\times 2}{=} \frac{6}{8}$



$\frac{4}{8}$ ← division

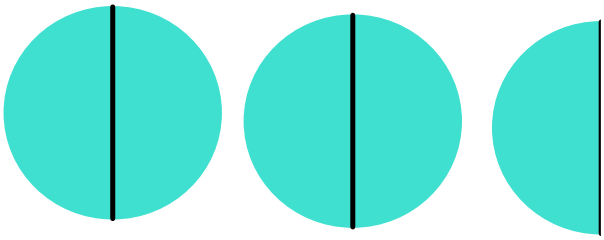
$4 \div 8 = 0.5$

$\frac{1}{2}$

$1 \div 2 = 0.5$

Study

A mixed number is a combination of a whole number and a fraction.



There are 2 whole circles and $\frac{1}{2}$ of another circle.

There are $2\frac{1}{2}$ circles shown.

$2\frac{1}{2}$ is a mixed number.

Improper Fractions

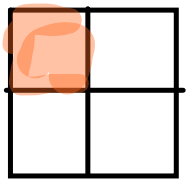
top ↗ ↗ bottom

a fraction in which the numerator is greater than the denominator,

Example) $\frac{5}{4}$ Numerator

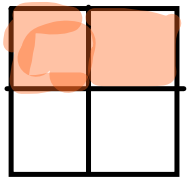
4 Denominator

$\frac{5}{4} = 1\frac{1}{4}$



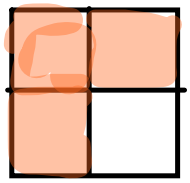
what fraction is colored?

$\frac{1}{4}$



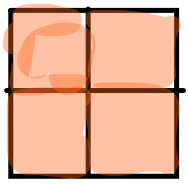
what fraction is colored?

$\frac{2}{4} \xrightarrow{\div 2} \frac{1}{2}$ or $\div 2$



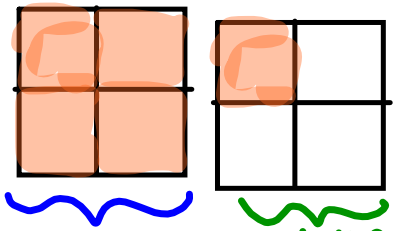
what fraction is colored?

$\frac{3}{4}$



what fraction is colored?

$\frac{4}{4} = 1$ whole



what fraction is colored?

$\frac{5}{4} = 1\frac{1}{4}$

1 whole object shaded

1 piece $\frac{1}{4}$

Improper

Mixed

Both mixed and Improper

What is the value as a fraction?

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

What is the value as a fraction?

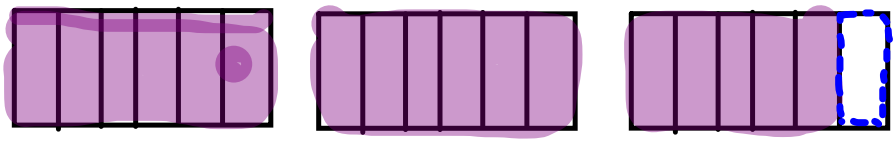
$\frac{1}{4}$

What is the value as a fraction?

$\frac{10}{4} \Rightarrow 2\ \frac{2}{4}$

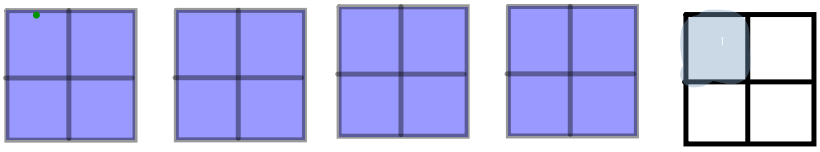
Write each of mixed and improper

1a)



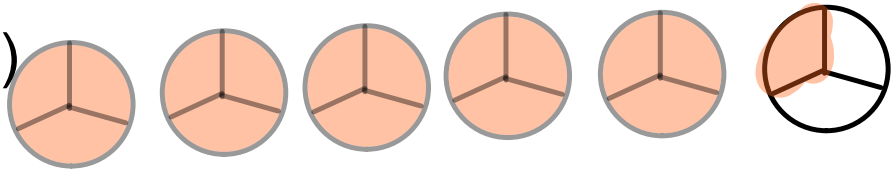
$\frac{17}{6}$ $2\frac{5}{6}$

1b)

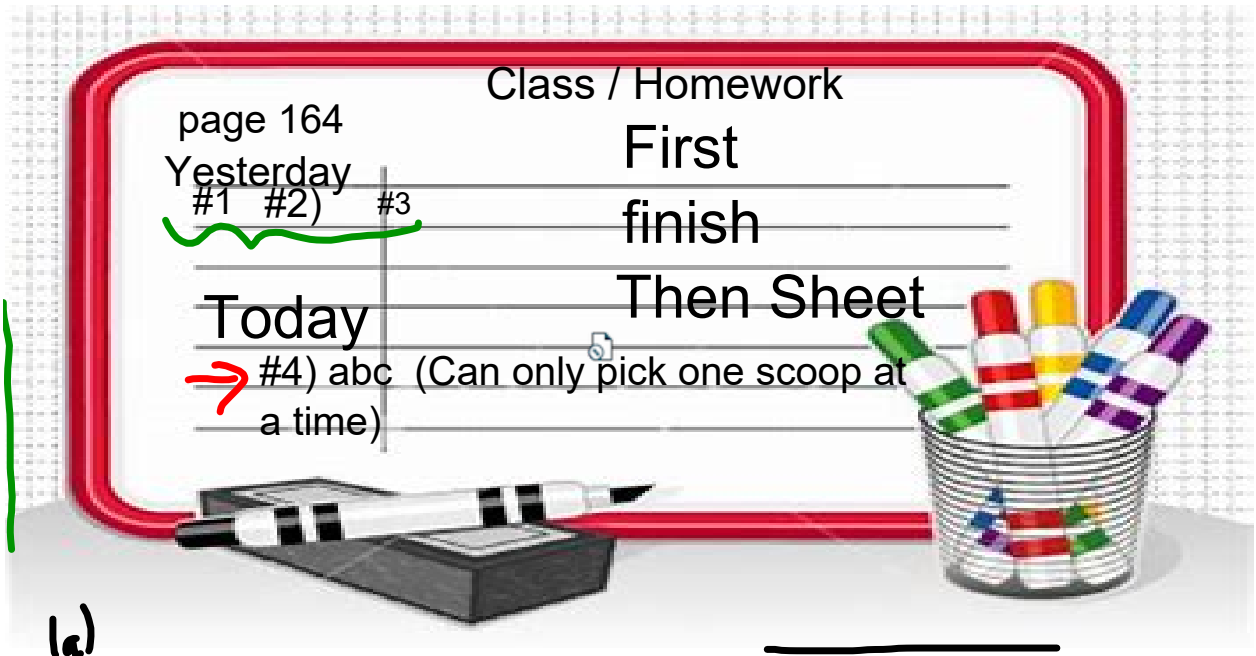


$\frac{17}{4}$ $= 4\frac{1}{4}$

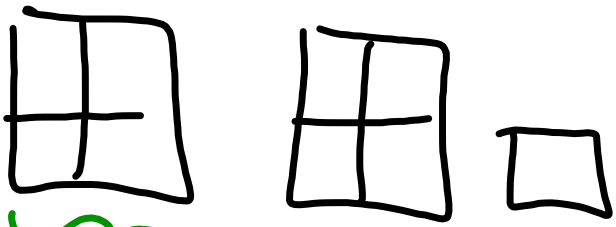
1c)



$\frac{16}{3} = 5\frac{1}{3}$



1a)



$2\frac{1}{4}$

bottom # is # of pieces that make 1 Whole object

Model each of the following, then write as improper.

$3\frac{3}{10}$

$4\frac{3}{5}$

$2\frac{1}{8}$

$1\frac{1}{7}$

7

Model each of the following, then write as Mixed

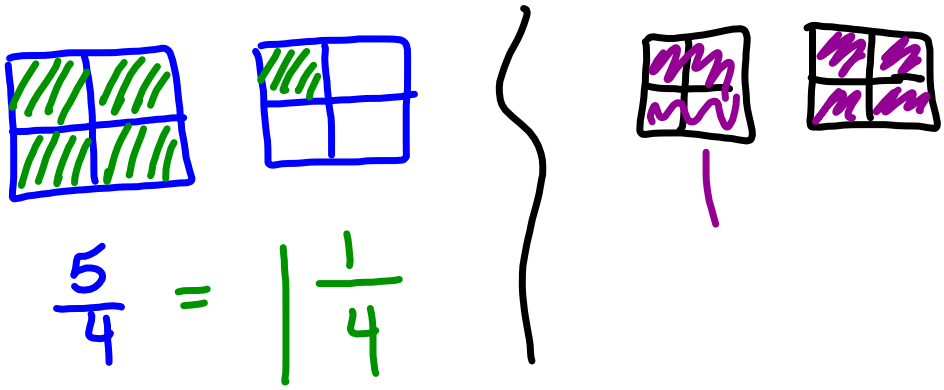
$\frac{17}{6}$

$\frac{31}{10}$

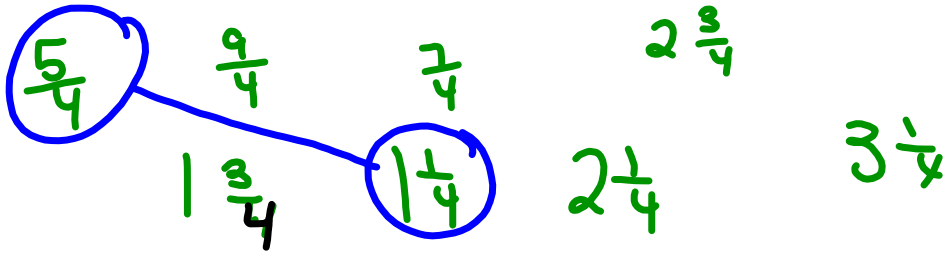
$\frac{26}{12}$

$\frac{21}{7}$

$\frac{40}{9}$



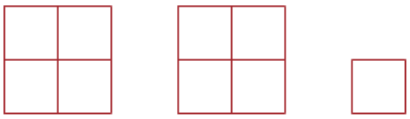
$\frac{5}{4} = 1\frac{1}{4}$



Practice

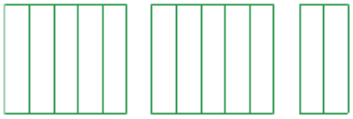
1. Describe each picture as an improper fraction and as a mixed number.

a)



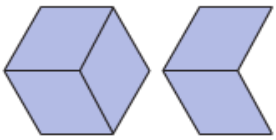
b)

c)

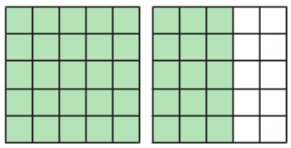


d)

e)



f)



2. a) Match each improper fraction with a mixed number.
Draw pictures to record your work.

$\frac{5}{4}$ $\frac{9}{4}$ $\frac{7}{4}$ $2\frac{3}{4}$

$1\frac{3}{4}$ $1\frac{1}{4}$ $2\frac{1}{4}$ $3\frac{1}{4}$

b) Draw a picture to show an improper fraction for each mixed number that did not match.

3. Use Pattern Blocks. Are the numbers in each pair equivalent?
Show your work.

a) $3\frac{2}{3}$ and $\frac{11}{3}$ b) $\frac{8}{6}$ and $1\frac{1}{6}$ c) $2\frac{1}{2}$ and $\frac{5}{2}$

4. Which scoop would you use to measure each amount?
How many of that scoop would you need?

a) $1\frac{1}{6}$ cups b) $2\frac{1}{2}$ cups c) $1\frac{2}{3}$ cups d) $1\frac{5}{6}$ cups

5. The Fernandez family drank $3\frac{1}{2}$ pitchers of water on a picnic. Draw pictures to show the amount, then write this mixed number as an improper fraction. Show your work.

6. Kendra mowed her lawn for $2\frac{1}{2}$ h.
Mario mowed his lawn for $\frac{1}{4}$ h, then stopped. He did this 7 times.
Who spent more time mowing the lawn?
How do you know?

7. Carlo baked pies for a party. He cut some pies into 6 pieces and some into 8 pieces. After the party, more than $2\frac{1}{2}$ but less than 3 pies were left. How much pie might have been left? Show how you know.

8. Renée was making crepes by the dozen. Renée's family ate $2\frac{1}{3}$ dozen crepes. How many crepes did they eat? Show your work.

9. How can you find out if $2\frac{1}{2}$ and $\frac{10}{4}$ name the same amount? Use words, numbers, and pictures to explain.