






Warm up Grade 6

Date: _____

Chapter 5


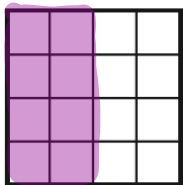
Lesson 1 Day 1

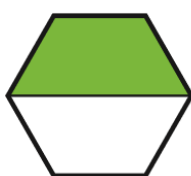
**Color the cookie to show the equivalent fraction.
Write out the fraction each picture shows.**


 $\frac{2}{4} =$

 $\frac{4}{8}$
 1. $\frac{2}{4} = \frac{4}{8}$


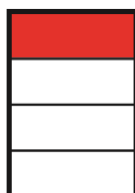
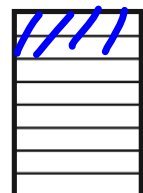
**Shaded
total**

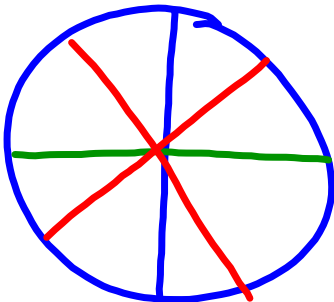
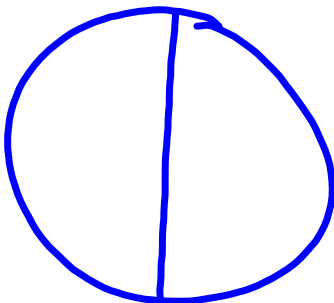
**Color each shape to show an equivalent fraction.
Write the fraction each shape shows.**


 $=$

 2. $\frac{1}{2} = \frac{8}{16}$


 $=$

 3. $\frac{1}{2} = \frac{3}{6}$


 $=$

 4. $\frac{1}{4} = \frac{2}{8}$



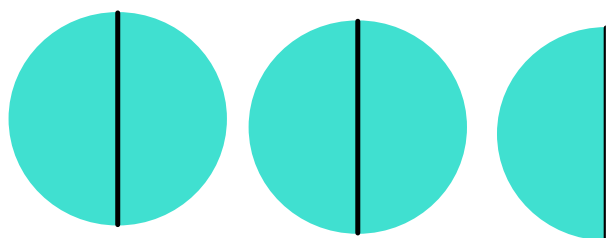
$$\frac{4}{8} \leftarrow \text{division}$$

$$4 \div 8 = 0.5$$

$$\frac{1}{2}$$

$$1 \div 2 = 0.5$$

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



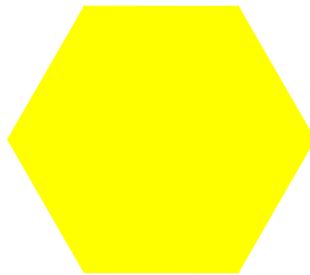
There are 2 whole circles and $\frac{1}{2}$ of another circle.

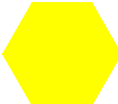
There are $2\frac{1}{2}$ circles shown.

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



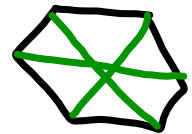
Pattern Blocks



1) If  is one whole, then

a) how many triangles will cover the hexagon?

6 

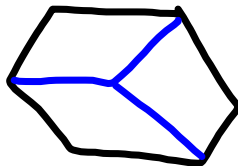
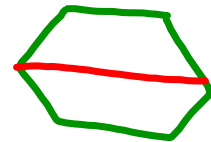


b) how many trapezoids will cover the hexagon?

2 

c) how many rhombus will cover the hexagon?

3 



Ex 2)



2  make 1 whole Rhombus.

If this is 1 whole, then what would the following be?



$2\frac{1}{2}$ OR $\frac{5}{2}$



[Mixed Numbers Fractions with Pattern Blocks](#)

Connect

You can use whole numbers and fractions to describe amounts greater than 1.

Suppose the red trapezoid is 1 whole.



7 thirds

Three green triangles cover the trapezoid. So, each green triangle represents $\frac{1}{3}$.



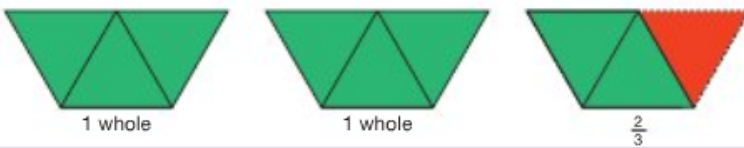
$\frac{8}{3}$

Then, eight green triangles represent $\frac{8}{3}$.



$2\frac{2}{3}$

These triangles can be grouped to show that $\frac{8}{3}$ is equal to 2 and $\frac{2}{3}$.



We write 2 and $\frac{2}{3}$ as $2\frac{2}{3}$.

$\frac{8}{3}$ and $2\frac{2}{3}$ represent the same amount. They are equivalent.

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

The numerator, 8, of $\frac{8}{3}$ is greater than the denominator, 3. So, we call $\frac{8}{3}$ an **improper fraction**.

$2\frac{2}{3}$ has a whole number part, 2, and a fraction part, $\frac{2}{3}$. So, we call $2\frac{2}{3}$ a **mixed number**.

I say two and two-thirds.



Improper Fractions

↑ top

↑ bottom



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

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



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

You Try

1) How many fruit bars are shown?

$$\frac{3}{2}$$



Full bar

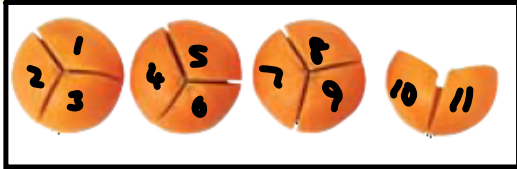
$$1 \frac{1}{2}$$

Mixed

OR $\frac{3}{2}$

bottom # ← is how many pieces it takes to make a whole

2) How many oranges are shown?

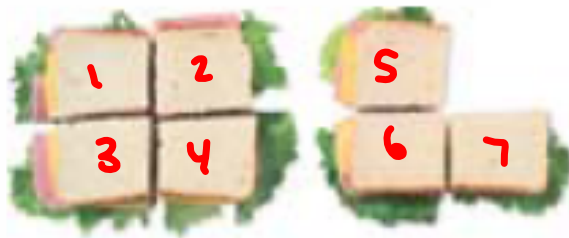


$$3 \frac{2}{3}$$

OR $\frac{11}{3}$

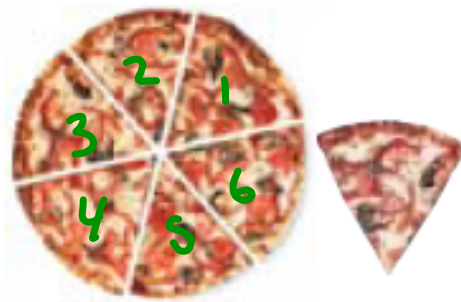
3) Write a mixed number for each picture.

$$\frac{7}{4}$$

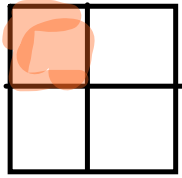


$$1 \frac{3}{4} \text{ or } \frac{7}{4}$$

4) Write a mixed number for each picture.

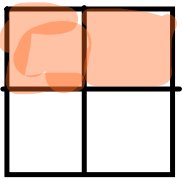


$$1 \frac{1}{6} \text{ or } \frac{7}{6}$$



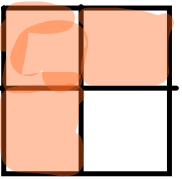
what fraction is colored?

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



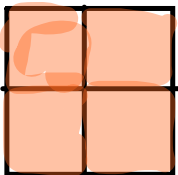
what fraction is colored?

$$\frac{2}{4}$$



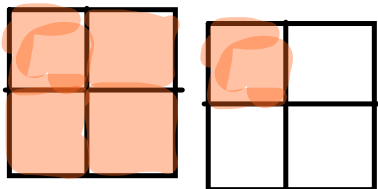
what fraction is colored?

$$\frac{3}{4}$$



what fraction is colored?

$$\frac{4}{4}$$



what fraction is colored?

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

Improper

Both mixed and Improper



What is the value as a fraction?

\$1
four quarters



What is the value as a fraction?

$\frac{1}{4}$ 1 quarter



What is the value as a fraction?

10 quarters
 $\frac{10}{4}$ Improper fraction = $2\frac{2}{4}$ Mixed

Write each of mixed and improper

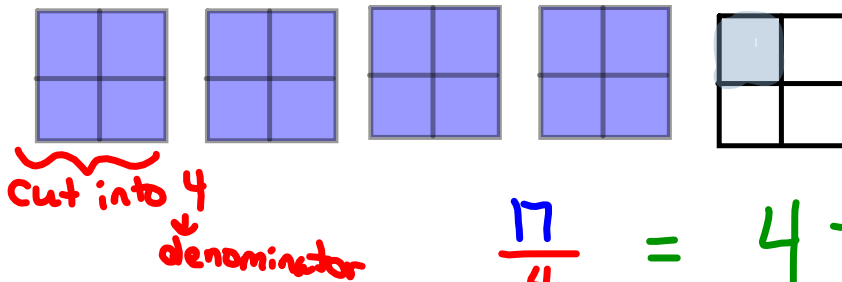
1a)



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

Improper Mixed

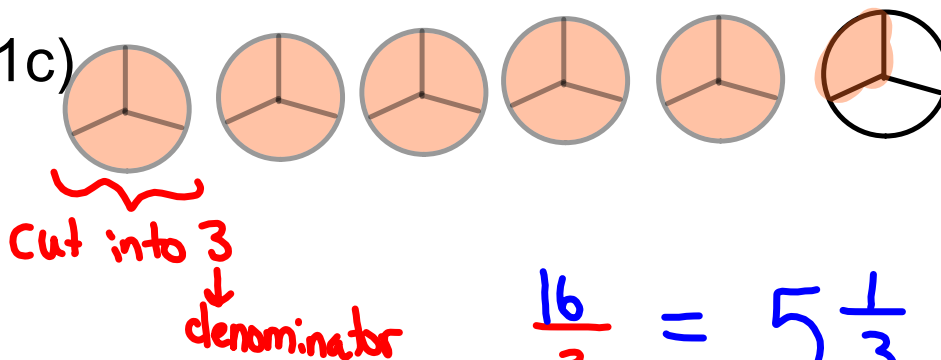
1b)



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

Improper Mixed

1c)



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

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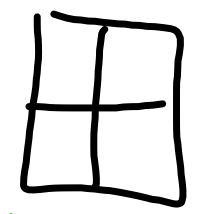
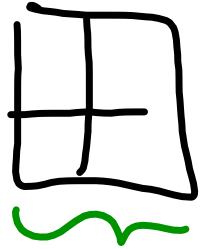
Class / Homework
First

- #1) _____ finish _____
- #2) _____ Then Sheet _____
- #3) a _____
- #4) abc (Can only pick one scoop at a time)

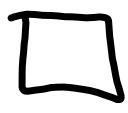


1a)

cut into 4 → denominator



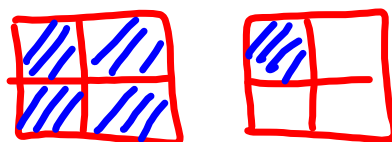
$$\frac{9}{4} = 2\frac{1}{4}$$



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

bottom # is # of pieces that make 1 whole object

2) $\frac{5}{4}$ ← shaded
← cut into 4 pieces



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

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

$$\frac{17}{6}$$

$$\frac{31}{10}$$

$$\frac{26}{12}$$

$$\frac{21}{7}$$

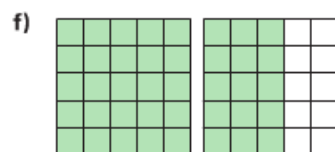
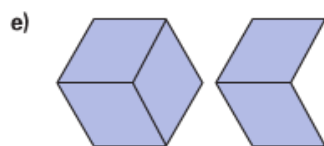
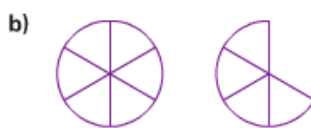
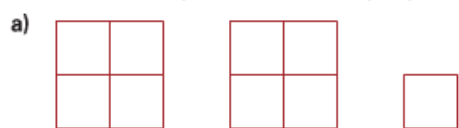
$$\frac{40}{9}$$

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

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

Practice

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



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

$$\frac{5}{4} \qquad \frac{9}{4} \qquad \frac{7}{4} \qquad 2\frac{3}{4} \qquad 1\frac{3}{4} \qquad 1\frac{1}{4} \qquad 2\frac{1}{4} \qquad 3\frac{1}{4}$$

- 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.