Warm up Grade 6

Date: __Dec 11__

Chapter 5
Lesson 1 Day 1

Color the cookie to show the equivalent fraction.
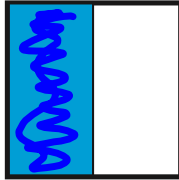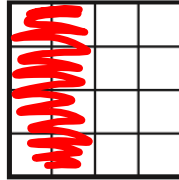**Write out the fraction each picture shows.**
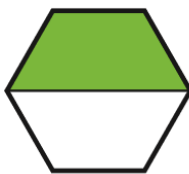
1. $\dfrac{2}{4} = \dfrac{4}{8}$

Color each shape to show an equivalent fraction.
Write the fraction each shape shows.
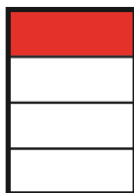
2. $\dfrac{1}{2} = \dfrac{8}{16}$
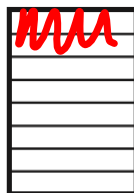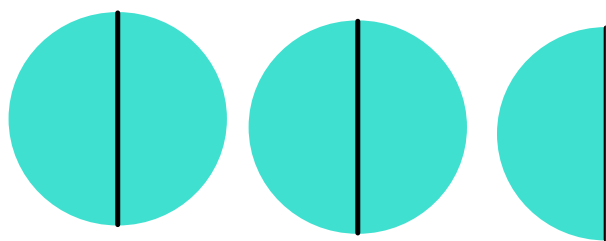
3. $\dfrac{1}{2} = \dfrac{3}{6}$

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

A <u>mixed number</u> is a combination of a whole number and a fraction.

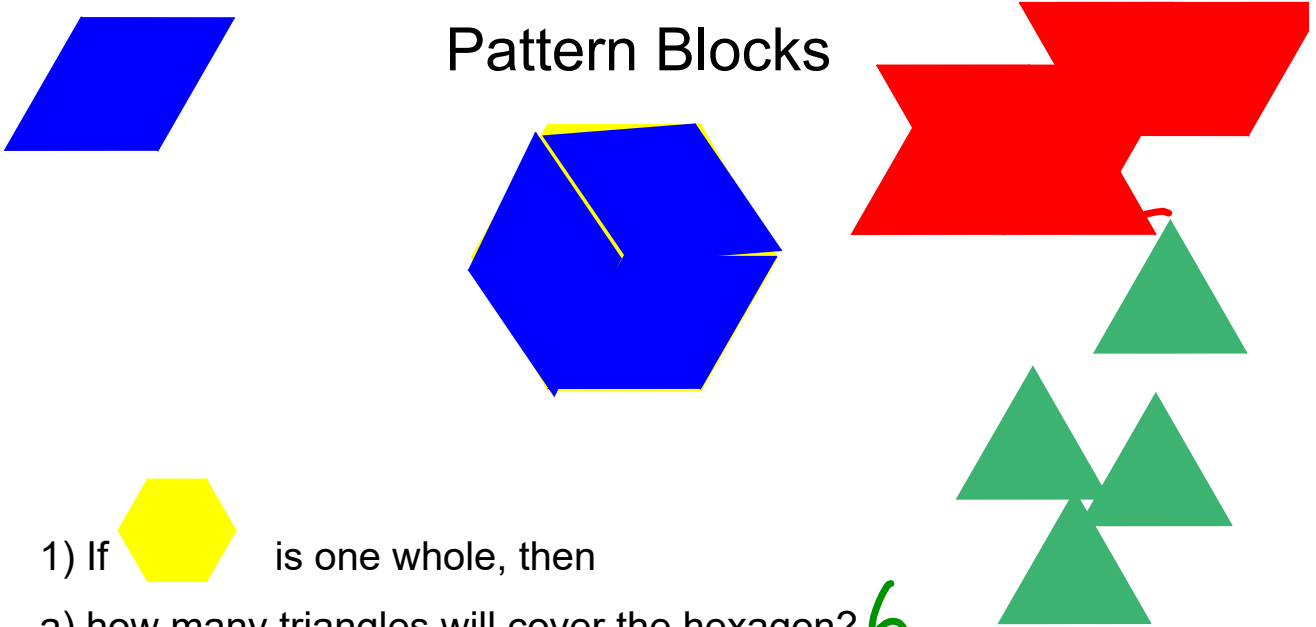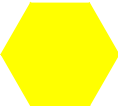There are $\boxed{2}$ whole circles and $\boxed{\frac{1}{2}}$ of another circle.

$2\frac{1}{2}$

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

$\boxed{2\frac{1}{2}}$ 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)

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

2 whole Rhombus   ½ Rhombus

$$\frac{5}{2}$$

Mixed Numbers Fractions with Pattern Blocks
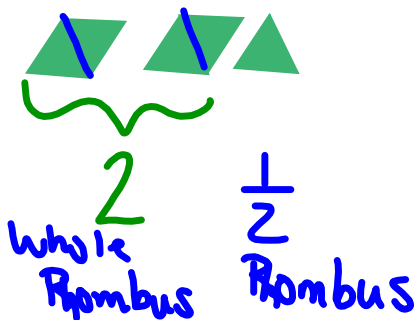
Connect ....

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

Suppose the red trapezoid is 1 whole.

1 whole

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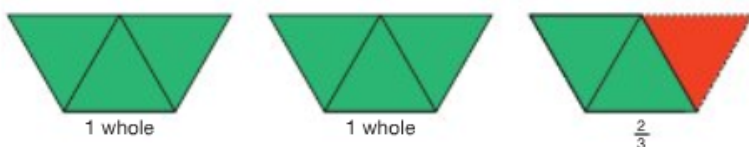
So, each green triangle represents $\frac{1}{3}$.

$\frac{3}{3} = 1$ whole

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

$\frac{8}{3}$

$$\frac{8}{3}$$

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

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

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**.
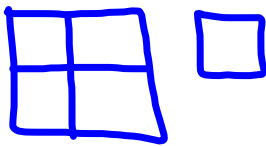
I say two and two-thirds.

Improper Fractions

Study

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

Example)   5   Numerator
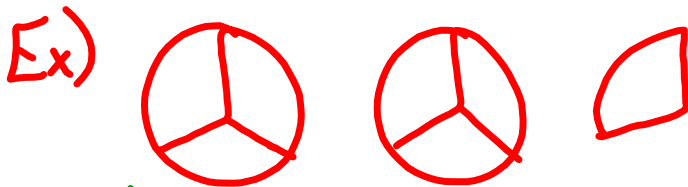   4   Denominator ← bottom #
                               tells me what
                                 my whole
                                  is cut into

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

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

Ex)

Cut into
3 pieces

← what we have
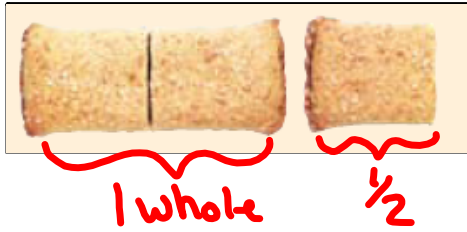
2 whole circles and $\frac{1}{3}$ ← what makes a whole

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

Improper $\frac{7}{3}$ ← individual small pieces
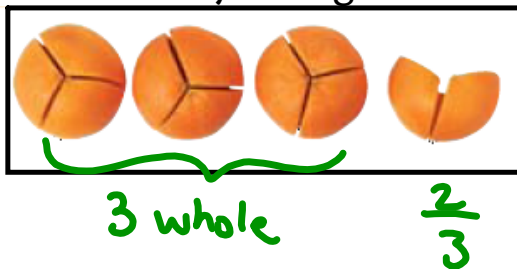   ← what makes a whole.
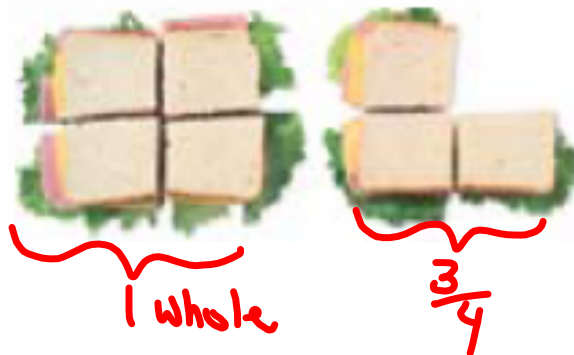
You Try

1) How many fruit bars are shown?

1 whole   ½

Mixed $1\frac{1}{2}$ Improper $\frac{3}{2}$

2) How many oranges are shown?

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

Mixed $3\frac{2}{3}$ Improper $\frac{11}{3}$

3) Write a mixed number for each picture.

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

Mixed $1\frac{3}{4}$ Improper $\frac{7}{4}$

4) Write a mixed number for each picture.

1 whole $\frac{1}{6}$
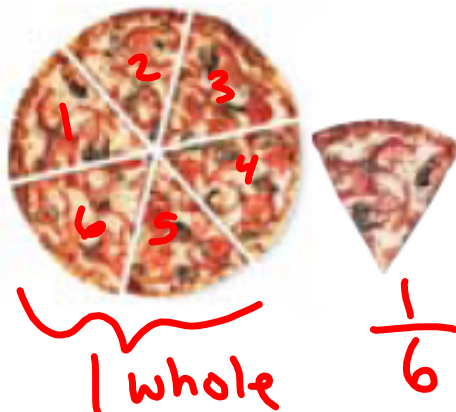
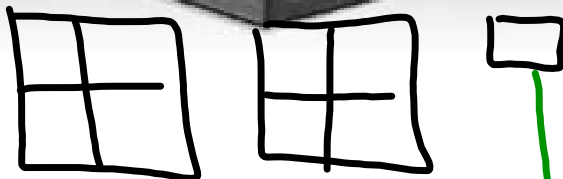| Mixed	Improper
$1\frac{1}{6}$	$\frac{7}{6}$

Class / Homework

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#1) write Mixed   Improper

#2a) Draw Pictu.

#3a,b,c   Draw Pictures

1a)

cut into 4 pieces → denominator

2 whole squares   1 piece out of 4

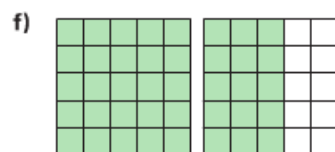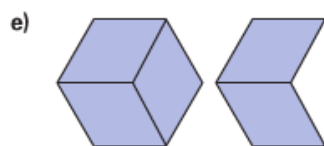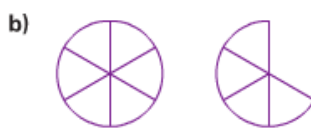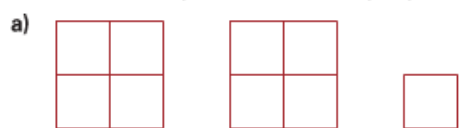Mix $2\frac{1}{4}$ Improper $\frac{9}{4}$

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.

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

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

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?

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

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.