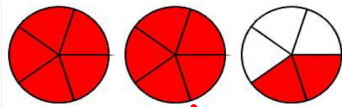Quiz Thursday Dec. 19

Warm up Grade 6
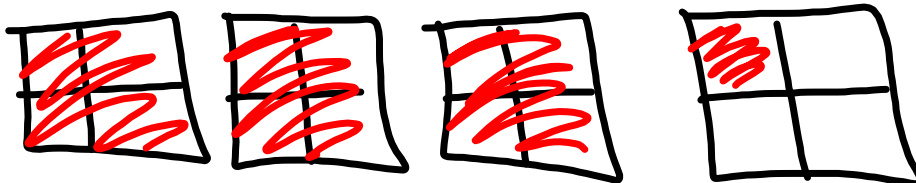
Date: Dec. 16

Chapter 5

Lesson 2 Day 1

Write each of the following as a mixed and then as a improper fraction.

a)

Improper $\frac{12}{5}$

2 whole

Mixed 2

$\frac{2}{5}$ → Shaded
5 → Whole is cut into

b)

Mixed $1\frac{3}{8}$

Improper $\frac{11}{8}$

Add to your sheet

Draw $3\frac{1}{4}$ ← what the whole object is cut into

3 wholes

$\frac{1}{4}$

Improper $\frac{13}{4}$

Practice

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

a) $2\frac{4}{4}$

b) $1\frac{4}{6}$

c) $2\frac{3}{5}$

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

e) $1\frac{2}{3}$

f) $1\frac{15}{25}$ or $1\frac{3}{5}$

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.

a) $\frac{5}{4}$ $1\frac{1}{4}$

b) $\frac{9}{4}$ $2\frac{1}{4}$

c) $\frac{7}{4}$ $1\frac{3}{4}$

$2\frac{3}{4}$ $\frac{11}{4}$

$3\frac{1}{4}$ $\frac{13}{4}$

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

a) $3\frac{2}{3}$ and $\frac{11}{3}$ Yes

b) $\frac{8}{6}$ and $1\frac{1}{6}$ no

c) $2\frac{1}{2}$ and $\frac{5}{2}$ Yes

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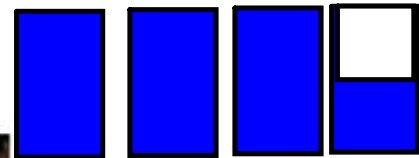   How many of that scoop would you need?

a) $1\frac{1}{6}$ cups   b) $2\frac{1}{2}$ cups   c) $1\frac{2}{3}$ cups   d) $1\frac{5}{6}$ cups
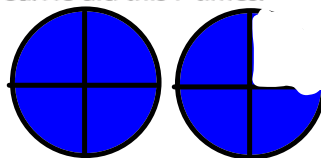
5. The Fernandez family drank $3\frac{1}{2}$ pitchers of water on a picnic. Draw pictures to show the amount, then write this mixed number as an improper fraction. Show your work.

$$\frac{7}{2}$$

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?
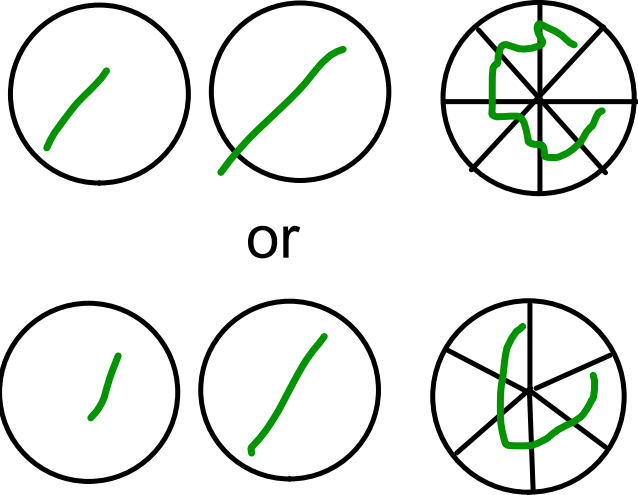   How do you know?

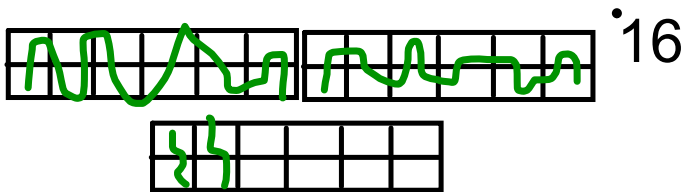   Kendra spent more

 $\frac{7}{4} = 1\frac{3}{4}$

   $= 1h \ 45min$

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.

or

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.

16

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.
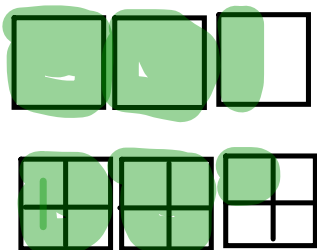
Converting Fractions (A)

Name: _____   Date: _____

Convert each mixed fraction to an improper fraction.

$9\frac{1}{9} = \frac{82}{9}$ $3\frac{8}{9} = \frac{35}{9}$ $8\frac{7}{12} = \frac{102}{12}$ $7\frac{7}{9} = \frac{70}{9}$

$3\frac{11}{15} = \frac{56}{15}$ $3\frac{2}{5} = \frac{17}{5}$ $4\frac{2}{7} = \frac{30}{7}$ $7\frac{1}{3} = \frac{22}{3}$

$5\frac{1}{7} = \frac{36}{7}$ $2\frac{7}{10} = \frac{27}{10}$ $3\frac{4}{5} = \frac{19}{5}$ $4\frac{5}{7} = \frac{26}{7}$

$3\frac{3}{8} = \frac{27}{8}$ $6\frac{1}{8} = \frac{49}{8}$ $5\frac{5}{6} = \frac{35}{6}$ $7\frac{4}{15} = \frac{109}{15}$

$4\frac{2}{9} = \frac{38}{9}$ $9\frac{1}{6} = \frac{55}{6}$ $7\frac{5}{8} = \frac{61}{8}$ $1\frac{5}{9} = \frac{14}{-}$

$6\frac{4}{7} = \frac{46}{7}$ $8\frac{7}{15} = \frac{127}{15}$ $6\frac{1}{5} = \frac{31}{5}$ $8\frac{1}{12} = \frac{97}{12}$

$8\frac{1}{15} = \frac{121}{15}$ $7\frac{5}{12} = \frac{89}{12}$ $1\frac{3}{10} = \frac{13}{10}$ $6\frac{8}{15} = \frac{96}{15}$

$1\frac{9}{10} = \frac{19}{10}$ $4\frac{6}{7} = \frac{34}{7}$ $1\frac{1}{4} = \frac{5}{4}$ $1\frac{11}{12} = \frac{23}{12}$

$3\frac{4}{9} = \frac{31}{9}$ $3\frac{1}{10} = \frac{31}{10}$ $2\frac{1}{2} = \frac{5}{2}$ $4\frac{3}{5} = \frac{23}{5}$

$4\frac{7}{8} = \frac{39}{8}$ $6\frac{2}{15} = \frac{92}{15}$ $5\frac{3}{4} = \frac{23}{4}$ $5\frac{3}{7} = \frac{38}{7}$

Math-Drills.com

$$4\frac{7^{+}}{8} = \frac{39}{8}$$

Same Denomintor

whole # X Denominator + top

4 X 8   + 7

32 pieces +   7

39

LESSON 2

Converting between Mixed Numbers and Improper Fractions

I have $\frac{5}{3}$ slices of French toast.

I have $1\frac{2}{3}$ slices of French toast.

How are $\frac{5}{3}$ and $1\frac{2}{3}$ related?

$$1\frac{2}{3} \Rightarrow \frac{5}{3}$$

Mixed   Improper

Review of yesterday

Remember Fractions are related to division (Grouping)

When I say   3 and four fifths   or $3\frac{4}{5}$ ← Shaded

it means : 3 full groups and a part of a group

Each group should have 5 pieces

| 1 full group | 1 full group | 1 full group | not full |
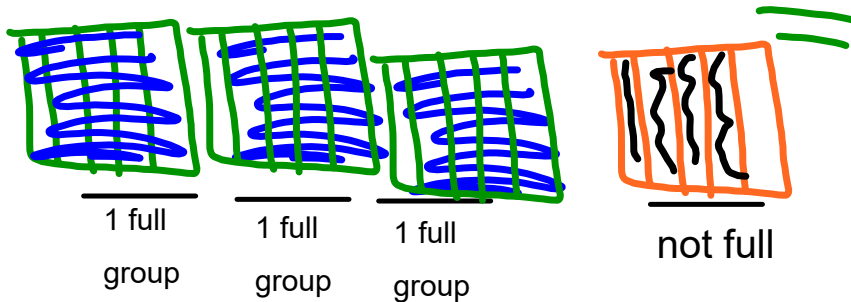
Now that you have it as mixed you can convert to improper by counting each individual piece BUT remember they are fifths in this case (Away keep the original denominator)

$$\frac{19}{5}$$

Convert using yesterday's method

(no modeling)

Ex)

$10 \begin{array}{c} +5 \\ \times 6 \end{array}$

Remember there is 10 full groups of 6 and 5 little pieces left over

$$\frac{65}{6}$$

Connect

➤ To write $2\frac{3}{4}$ as an improper fraction:

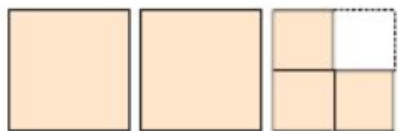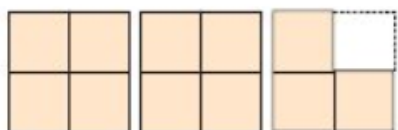• Alison thinks about money.

$$2\frac{3}{4} = \frac{11}{4}$$

$2:

3 quarters:

There are 11 quarters altogether.

So, $2\frac{3}{4} = \frac{11}{4}$

• Hiroshi draws a diagram to represent $2\frac{3}{4}$.

Hiroshi then divides each whole to show quarters.

So, $2\frac{3}{4}$ is the same as $\frac{11}{4}$.

> Two wholes are the same as 8 quarters. Eight quarters and 3 quarters equals 11 quarters.

• Nadia uses mental math.

> I know there are 4 quarters in 1 whole. So, in 2 wholes there are $2 \times 4 = 8$ quarters. Eight quarters plus 3 more quarters equals 11 quarters. So, $2\frac{3}{4}$ is the same as $\frac{11}{4}$.

How to convert Improper to mixed....   Study

Remember Fractions are related to division (Grouping)

$$\frac{18}{7} \leftarrow \div$$

Means if I have 18 pieces, how many full groups of 7 will I have?

7 goes into 18 --> **2 full times**

OOOOOOO **2 full**
OOOOOOO **groups of 7**
OOOO **4 left over**
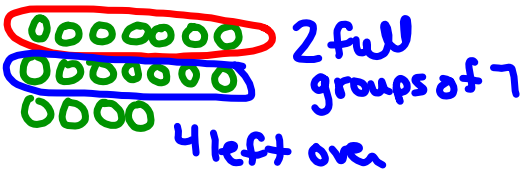
$$18 \div 7 = 2 \text{ Remainder } 4$$

$$\frac{18}{7} = 2\frac{4}{7}$$ $\leftarrow$ Remainder
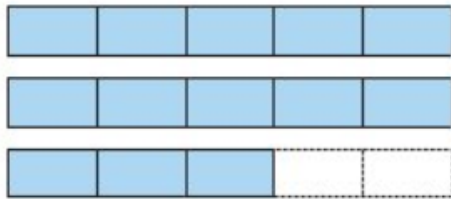$\leftarrow$ keep same denominator

full groups   part of the
                 remaining group

So Improper to mixed is division with a remainder
   Don't really have to model

➤ To write $\frac{13}{5}$ as a mixed number:
- Edna draws a diagram to show 13 fifths.

$13 \div 5 = 2$
R3

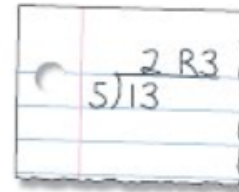There are 5 fifths in 1 whole, and 10 fifths in 2 wholes. There are 2 wholes, with 3 fifths left over.

So, $\frac{13}{5}$ is the same as $2\frac{3}{5}$.
- Chioke gets the same result using division.

There are 5 fifths in 1 whole. To find how many wholes are in 13 fifths, I divide: $13 \div 5 = 2$ with remainder 3. There are 2 wholes with 3 fifths left over.
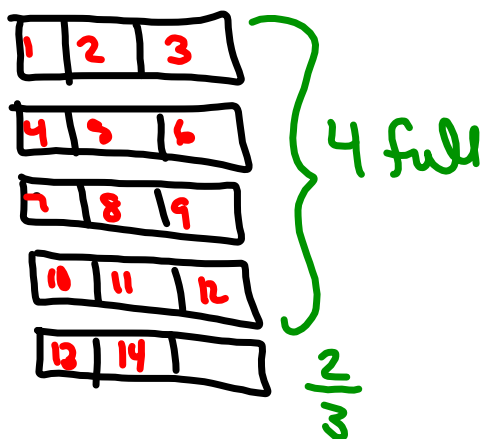
2 R3
5)13

So, $\frac{13}{5} = 2\frac{3}{5}$

You try

Convert the improper fractions to mixed

a) $\dfrac{14}{3} = 4\dfrac{2}{3}$

1 2 3
4 5 6
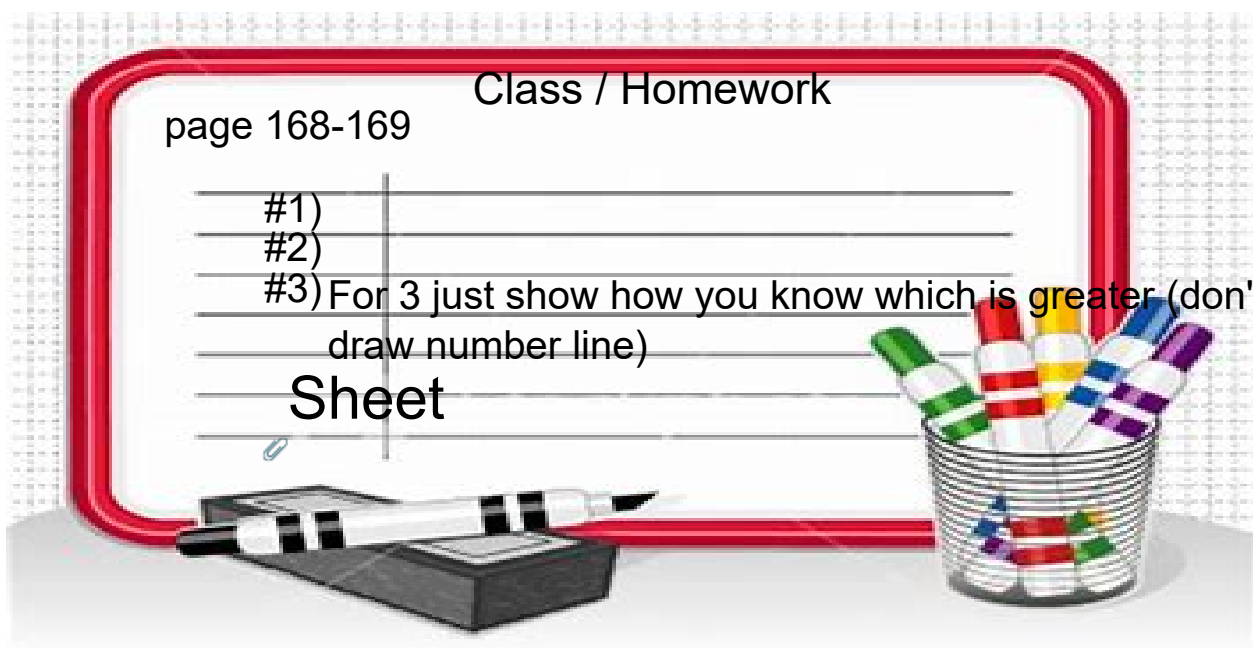7 8 9 } 4 full
10 11 12
13 14

$\dfrac{2}{3}$

page 168-169

Class / Homework

#1)

#2)

#3) For 3 just show how you know which is greater (don't draw number line)

Sheet

Practice

Use Cuisenaire rods or coloured strips when they help.

1. Write an improper fraction and a mixed number to describe each picture.

a)

b)

c)
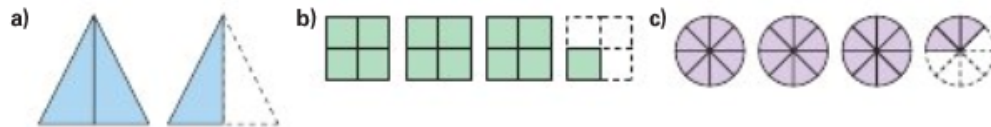
2. Draw a picture to represent each number.

a) $1\frac{5}{8}$ b) $1\frac{2}{3}$ c) $\frac{7}{4}$ d) $\frac{9}{2}$

3. Write each mixed number as an improper fraction.

a) $1\frac{1}{6}$ b) $4\frac{3}{8}$ c) $1\frac{3}{4}$ d) $3\frac{3}{5}$ e) $8\frac{1}{2}$ f) $7\frac{1}{4}$

4. Write each improper fraction as a mixed number.

a) $\frac{17}{5}$ b) $\frac{9}{4}$ c) $\frac{18}{4}$ d) $\frac{14}{3}$ e) $\frac{20}{3}$ f) $\frac{20}{6}$

5. Which of these improper fractions are between 4 and 5? How do you know?

a) $\frac{13}{3}$ b) $\frac{13}{4}$ c) $\frac{13}{5}$ d) $\frac{13}{6}$

6. Mary baked 5 round bannock for a bake sale at the Chief Kahkewistahaw Community School in Saskatchewan. She cut each bannock into 12 equal pieces. Mary sold 41 pieces of bannock.
   a) How many bannock did Mary sell? Give your answer 2 ways.
   b) How many bannock are left? Give your answer 2 ways.

7. Suppose you have 14 quarters. Do you have $4? Explain.

8) The pizza at Kwame's party is cut into eights. Kwane eats 3 slices and the rest of her family eat 18 slices. There are 3 slices left over. How may pizzas had been ordered?

9. Maybelline has $3\frac{5}{6}$ loaves of bread in her diner in Regina. The whole loaves are cut into 6 equal slices. To how many customers can Maybelline serve a slice of bread? Draw a diagram to show your solution.

10. Hair scrunchies come in packages of 5. Suppose you have $2\frac{1}{5}$ of these packages to share among 4 friends.
    a) Do you have enough scrunchies to give each friend three scrunchies? How do you know?
    b) Do you have enough scrunchies to give each friend two? How do you know?

Attachments

Improper and Mixed WS.notebook