Warm up Grade 6

Date: _____

Chapter 5

Lesson 1 Day 2
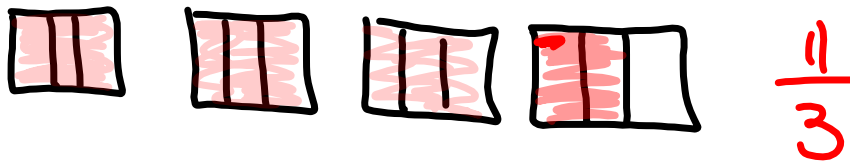
num ← shaded
den ← how many pieces
the whole object is cut in to

1) Model $3\frac{2}{3}$ with pattern blocks. Is this the same as $\frac{12}{3}$?
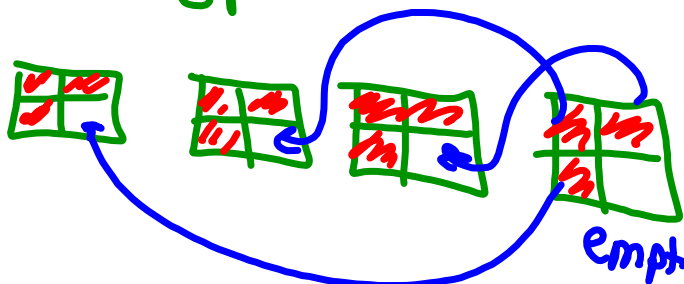

$\frac{11}{3}$

$3\frac{2}{3}$ is Not the same as $\frac{12}{3}$

#2) Will took 4 and a half hours to drive to his Nanny's house. Sam drove and took breaks. Sam drove 3/4 of an hour then took a break. She did this 4 times. Who spent more time driving? (Draw pictures to show how you know)

W:ll $4\frac{1}{2}$

Sam

use different colors

$4\frac{1}{2}$

⇒ Sam 3 hours

Or

empt
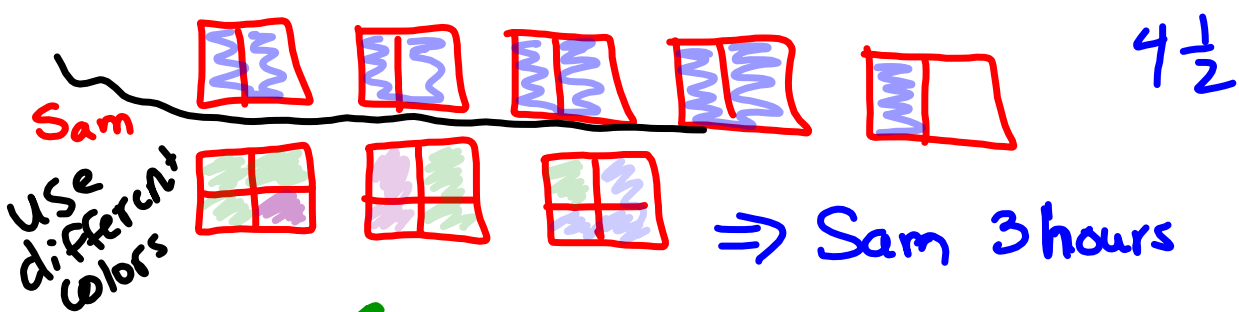
Practice

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

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

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

b)

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

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

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 $\frac{7}{6}$ 6 cups of $\frac{1}{6}$ makes 1 whole

b) $2\frac{1}{2}$ cups $\frac{5}{2}$

c) $1\frac{2}{3}$ cups $\frac{5}{3}$

d) $1\frac{5}{6}$ cups $\frac{11}{6}$

How to convert from mixed to improper without modelling...

Convert Mixed Numbers to Improper Fractions

$4\frac{2}{3}$

FIRST
3 x 4

FIRST multiply denominator by the whole number

3 x 4 = 12

How many thirds are in the whole number?

NEXT
12 + 2

$4\frac{2}{3}$

NEXT add the product to the numerator

12 + 2 = 14

PLUS how many thirds are in the fraction?

TOTAL THIRDS:

LAST The sum is the numerator
Keep the same denominator

$= \frac{14}{3}$

Convert from mixed to improper without modelling...

You try

a) $5\frac{1}{6}$

$\frac{31}{6}$

b) $3\frac{2}{7} = \frac{23}{7}$

c) $6\frac{5}{8} = \frac{53}{8}$

$5 \times 6 = 30$ $+ 1$

31

$\frac{31}{6}$
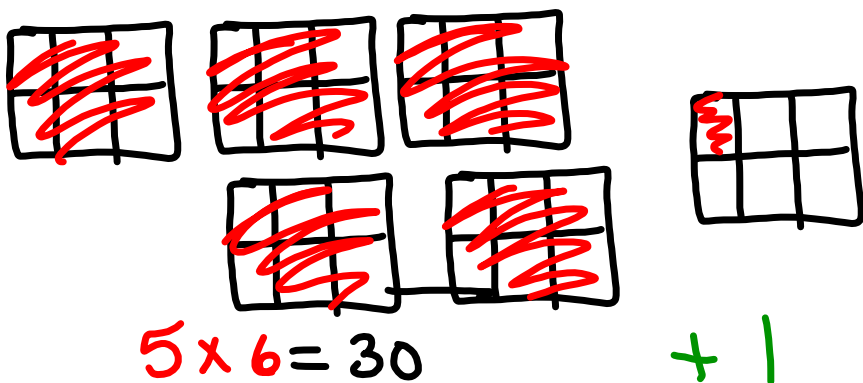
Are the following equivalent

Mixed   **Improper**

a) $2\dfrac{3}{5}$ $\dfrac{13}{5}$

↓

Change to improper
to compare

$$\dfrac{13}{5} = \dfrac{13}{5}$$

Mixed   **improper**

b) $5\dfrac{1^{+}}{12}$ $\dfrac{59}{12}$

×↷

↓

Change to
improper

$$\dfrac{61}{12} \neq \dfrac{59}{12}$$

$$>$$

Class / Homework

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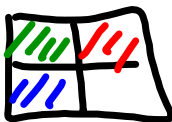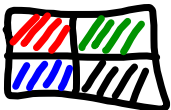
#5, #6, #7, #8

Sheet (next page)

$$3\frac{1}{2} = \frac{7}{2}$$

$$3 \times 2 + 1$$

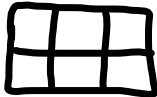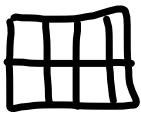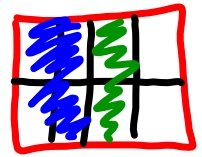$$6 + 1 = 7$$
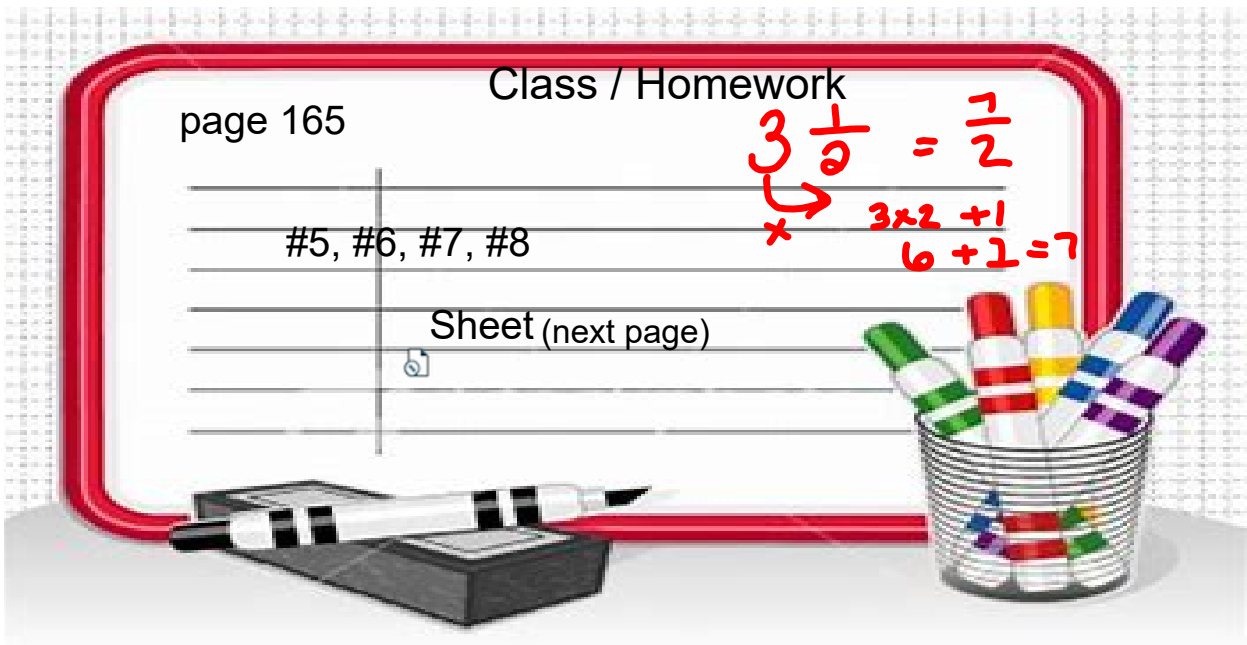
6) $2\frac{1}{2}$
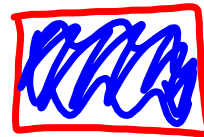
Kendra
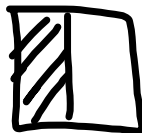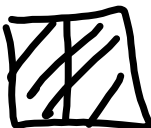
Mario

$1\frac{3}{4}$

7)

Must know

$\frac{4}{8}$ is $\frac{1}{2}$

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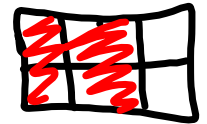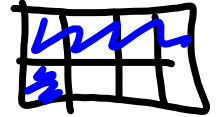
2

$2\frac{5}{8}$

$2\frac{6}{8}$

$2\frac{7}{8}$
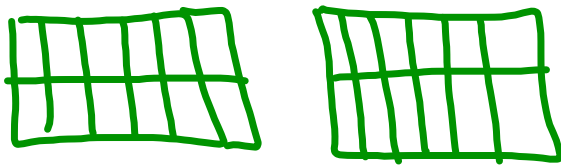
$2\frac{4}{6}$

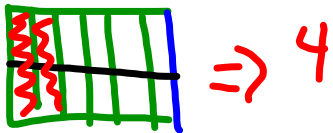$2\frac{5}{6}$

OR

or

$2\frac{1}{3}$ of a dozen

12

2 full dozen = 24 creps

$\frac{1}{3}$ of dozen $\frac{1}{3}$ of 12 = 12 ÷ 3 = 4

=> 4

ate 28 creps

Converting Fractions (A)

Name: _____ 　　　 Date: _____

Convert each mixed fraction to an improper fraction.

$9\frac{1}{9} = -$ 　　　 $3\frac{8}{9} = -$ 　　　 $8\frac{7}{12} = -$ 　　　 $7\frac{7}{9} = -$

$3\frac{11}{15} = -$ 　　 $3\frac{2}{5} = -$ 　　　 $4\frac{2}{7} = -$ 　　　 $7\frac{1}{3} = -$

$5\frac{1}{7} = -$ 　　　 $2\frac{7}{10} = -$ 　　 $3\frac{4}{5} = -$ 　　　 $4\frac{5}{7} = -$

$3\frac{3}{8} = -$ 　　　 $6\frac{1}{8} = -$ 　　　 $5\frac{5}{6} = -$ 　　　 $7\frac{4}{15} = -$

$4\frac{2}{9} = -$ 　　　 $9\frac{1}{6} = -$ 　　　 $7\frac{5}{8} = -$ 　　　 $1\frac{5}{9} = -$

$6\frac{4}{7} = -$ 　　　 $8\frac{7}{15} = -$ 　　 $6\frac{1}{5} = -$ 　　　 $8\frac{1}{12} = -$

$8\frac{1}{15} = -$ 　　 $7\frac{5}{12} = -$ 　　 $1\frac{3}{10} = -$ 　　 $6\frac{8}{15} = -$

$1\frac{9}{10} = -$ 　　 $4\frac{6}{7} = -$ 　　　 $1\frac{1}{4} = -$ 　　　 $1\frac{11}{12} = -$

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

$4\frac{7}{8} = -$ 　　　 $6\frac{2}{15} = -$ 　　 $5\frac{3}{4} = -$ 　　　 $5\frac{3}{7} = -$

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Practice

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

a)

b)

c)

d)

e)

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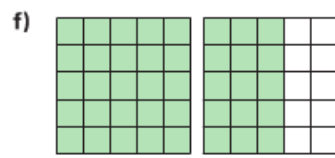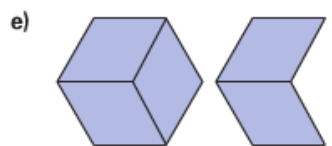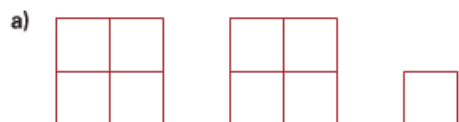
2. a) Match each improper fraction with a mixed number.
Draw pictures to record your work.

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

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

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.