

Warm Up Grade 7

Date: Oct. 27



1) Answer the following

a) $\frac{2\times}{7} + \frac{5}{\times 5}$

$2\times 15 \quad 6 \times 5$

$\frac{14}{30} + \frac{25}{30}$

$\frac{39}{30}$ Reduce $\div 3$ $\div 3$

$= \frac{13}{10}$

$= 1\frac{3}{10}$

b) $\frac{9}{\times 4} - \frac{1}{}$ $3\times$

$3\times \quad 4 \quad \times 4$

$\frac{27}{12} - \frac{4}{12}$

$\frac{23}{12}$

$= 1\frac{11}{12}$

$\frac{39}{30} = 1\frac{9}{30}$ $\div 3$ $\div 3$

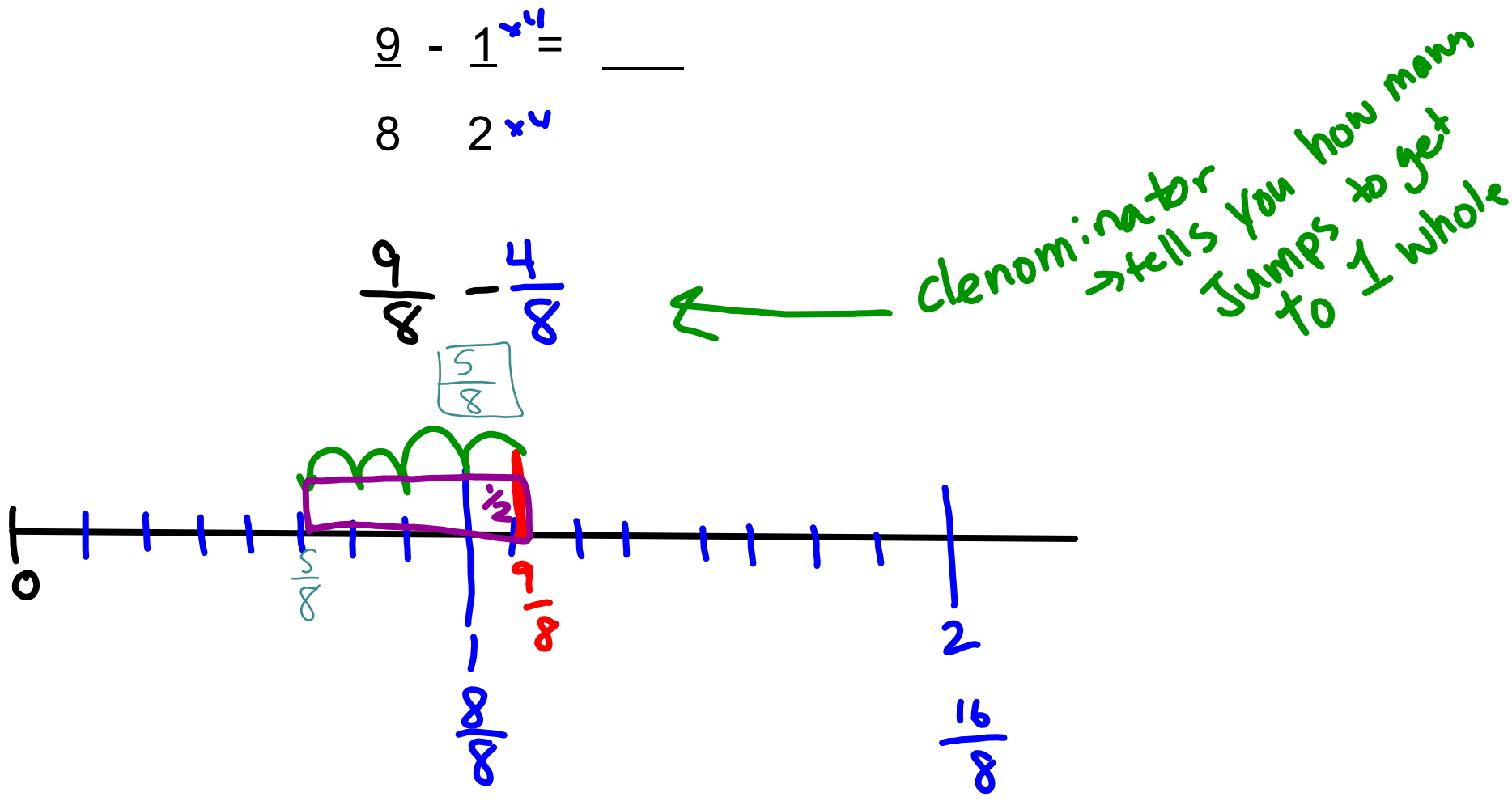
$1\frac{3}{10}$

2) Draw a number line that uses fraction strips that model

Hint: (Largest number where box ends) - (box size) = (start of box)

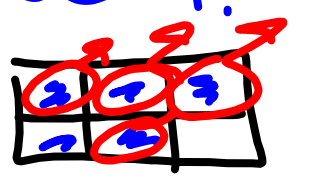
$\frac{9}{8} - \frac{1}{\times 4} = ___$

$8 \quad 2 \times 4$



Extra Practice 4

1) a) $\frac{5}{6} - \frac{4}{6}$



$= \frac{1}{6}$

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

$\frac{1}{5}$

c) $\frac{9}{10} - \frac{7}{10}$

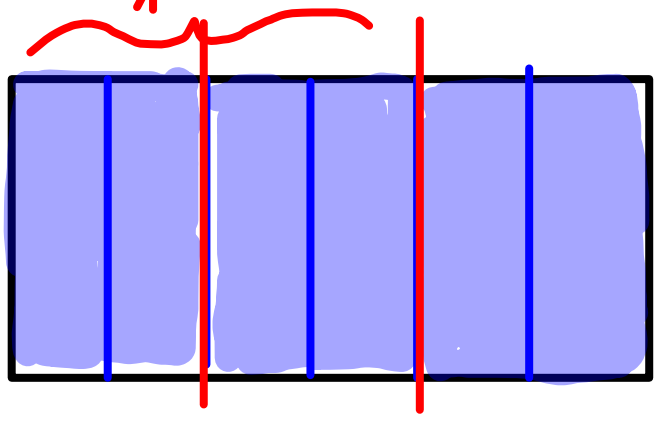
$\frac{2}{10} = \frac{1}{5}$

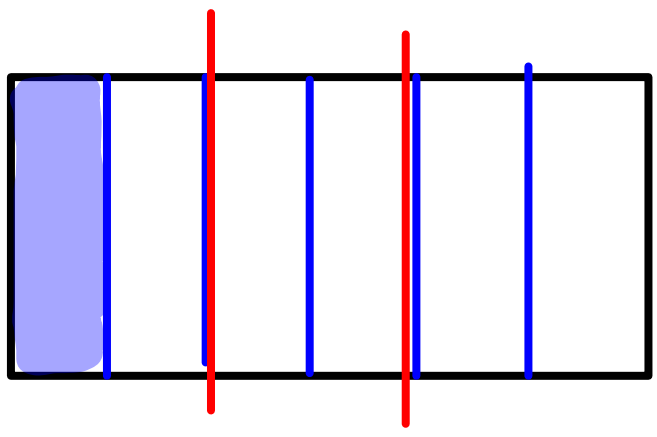
d) $\frac{7}{8} - \frac{5}{8}$

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

2 a) $\frac{7}{6} - \frac{2}{3}$

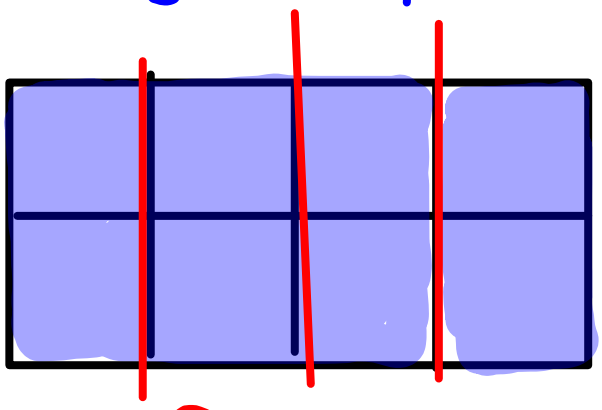
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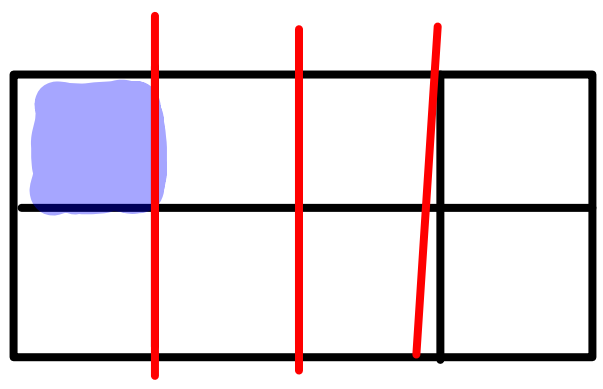




$\frac{7}{6} - \frac{4}{6} = \frac{3}{6}$

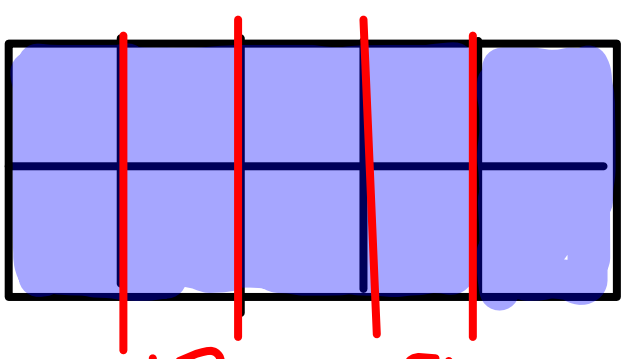
b) $\frac{9}{8} - \frac{3}{4}$

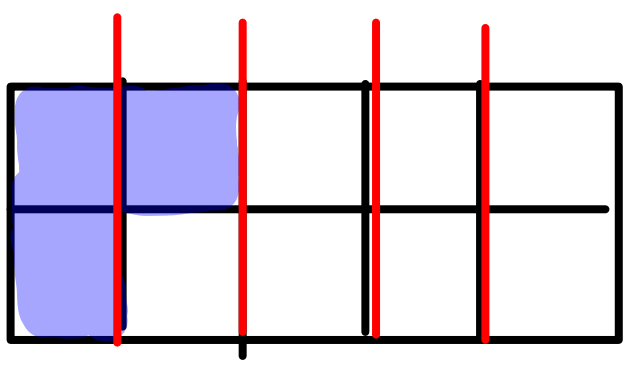




$\frac{9}{8} - \frac{6}{8} = \frac{3}{8}$

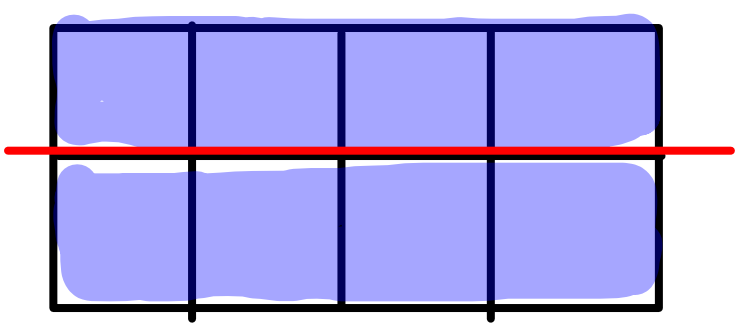
c) $\frac{13}{10} - \frac{4}{5}$

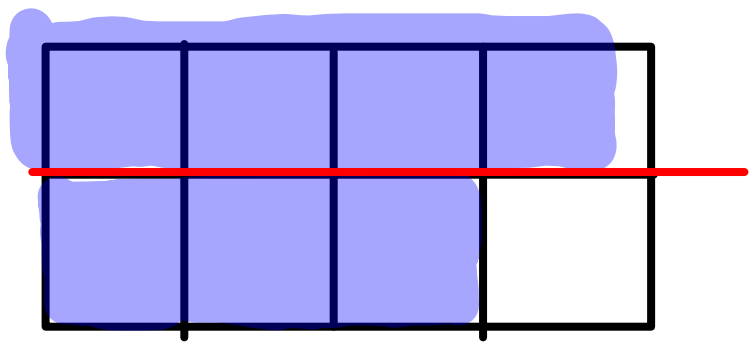




$\frac{13}{10} - \frac{8}{10} = \frac{5}{10}$ or $\frac{1}{2}$

d) $\frac{15}{8} - \frac{3}{2}$





$\frac{15}{8} - \frac{12}{8} = \frac{3}{8}$

3. a) $\frac{7}{8} - \frac{2}{3}$

$\frac{21}{24} - \frac{16}{24}$

$\frac{5}{24}$

b) $\frac{6}{5} - \frac{1}{3}$

$\frac{18}{15} - \frac{5}{15}$

$\frac{13}{15}$

c) $\frac{5}{4} - \frac{1}{3}$

$\frac{15}{12} - \frac{4}{12}$

$\frac{11}{12}$

d) $\frac{3}{5} - \frac{1}{4}$

$\frac{12}{20} - \frac{5}{20}$

$\frac{7}{20}$

Homework Practice 4 #4, 5
Practice 5 #1-6

4. Brandy spent $\frac{1}{10}$ of her summer vacation reading, $\frac{1}{15}$ watching her favourite movies, $\frac{1}{3}$ visiting her grandparents, and twice the reading time playing with her friends. /10

a) What is the difference in the fractions Brandy spent with her grandparents and playing with her friends?

b) Did she spend more time reading or watching movies? Explain your thinking.

c) Did Brandy have time to do anything else beside these activities? Explain your thinking.

G - F

a) Friend $\frac{2}{10}$

$\frac{1}{3} - \frac{2}{10}$

$\frac{10}{30} - \frac{6}{30} = \frac{4}{30}$

$= \frac{2}{15}$

b) Reading $\frac{1}{10}$ TV $\frac{1}{15}$

$\frac{1}{10} = \frac{3}{30}$ and $\frac{1}{15} = \frac{2}{30}$ so $\frac{1}{10}$ is greater

Both have 1 piece and tenth are bigger pieces, so $\frac{1}{10}$ is greater

c) $\frac{1}{10} + \frac{1}{15} + \frac{1}{3} + \frac{2}{10}$

$\frac{3}{30} + \frac{2}{30} + \frac{10}{30} + \frac{6}{30} = \frac{21}{30}$

Yes Brandy did have time for other activities

5. Glenn has $\frac{5}{8}$ of a cup of walnuts.

He needs $\frac{2}{3}$ of a cup of walnuts to make a loaf of banana bread.

Does Glenn have enough?
If your answer is yes, explain why it is enough.
If your answer is no, how much more does Glenn need?

$\frac{5}{8} = \frac{15}{24}$ $\frac{2}{3} = \frac{16}{24}$

No, Glenn needs $\frac{1}{24}$ of a cup more.

Ex Prac 5

1. Subtract.

a) $\frac{7}{12} - \frac{5}{12}$ $\frac{2}{12} = \frac{1}{6}$

b) $\frac{5}{6} - \frac{2}{6}$ $\frac{3}{6} = \frac{1}{2}$

c) $\frac{3}{10} - \frac{1}{10}$ $\frac{2}{10} = \frac{1}{5}$

d) $\frac{2}{3} - \frac{1}{3}$ $\frac{1}{3}$

2. Subtract.

Estimate first.

a) $\frac{4}{6} - \frac{3}{8}$ $\approx \frac{1}{8}$

$\frac{16}{24} - \frac{9}{24}$

$\frac{7}{24}$

b) $\frac{5}{6} - \frac{5}{9}$ $\approx$ less than $\frac{1}{2}$

$\frac{30}{36} - \frac{20}{36} = \frac{10}{36}$

$= \frac{5}{18}$

c) $\frac{3}{4} - \frac{1}{6}$ $\approx \frac{1}{2}$

$\frac{18}{24} - \frac{4}{24}$

$\frac{14}{24} = \frac{7}{12}$

d) $\frac{3}{2} - \frac{5}{6}$ $\approx \frac{1}{2}$

$\frac{9}{6} - \frac{5}{6}$

$\frac{4}{6} = \frac{2}{3}$

3. Subtract.
Estimate first.

a) $\frac{4}{5} - \frac{1}{4}$ $\approx \frac{1}{2}$

$\frac{16}{20} - \frac{5}{20}$

$\frac{11}{20}$

b) $\frac{9}{10} - \frac{2}{3}$ $\approx \frac{1}{3}$

$\frac{27}{30} - \frac{20}{30}$

$\frac{7}{30}$

c) $\frac{7}{4} - \frac{8}{5}$

$\frac{35}{20} - \frac{32}{20}$

$\frac{3}{20}$

d) $\frac{5}{3} - \frac{9}{8}$

$\frac{40}{24} - \frac{27}{24}$

$\frac{13}{24}$

c) $1\frac{3}{4} - 1\frac{3}{5}$
close to 0
$\frac{1}{10}$

d) $1\frac{2}{3} - \frac{1}{8}$
little more than $\frac{1}{2}$

4. Two-fifths of the students in a class voted for a trip to the zoo.
One-third voted for a trip to the museum.

a) Which trip had more votes?

b) What is the difference of the fractions?

c) What fraction of the class did not vote?

a) $\frac{2}{5} = \frac{6}{15}$ $\frac{1}{3} = \frac{5}{15}$

The trip to the zoo had more votes.

b) $\frac{2}{5} - \frac{1}{3}$

$\frac{6}{15} - \frac{5}{15} = \frac{1}{15}$

d) $\frac{2}{5} + \frac{1}{3}$

$\frac{6}{15} + \frac{5}{15} = \frac{11}{15}$

so $\frac{4}{15}$ did not vote

5. Write as many different subtraction questions as you can where the answer is $\frac{7}{8}$.

$\frac{7}{8} = \frac{14}{16} = \frac{21}{24} = \frac{28}{32}$

$\frac{8}{8} - \frac{1}{8}$ $\quad \frac{15}{16} - \frac{1}{16}$ $\quad \frac{29}{32} - \frac{1}{32}$

$\frac{9}{8} - \frac{2}{8}$ $\quad \frac{17}{16} - \frac{3}{16}$ $\quad \frac{23}{24} - \frac{2}{24}$

$\frac{10}{8} - \frac{3}{8}$ $\quad \frac{19}{16} - \frac{5}{16}$ $\quad \frac{22}{24} - \frac{1}{24}$

6. On Saturday, Charla played the piano for $\frac{2}{6}$ h.

On Sunday, Charla increased the time she played by $\frac{1}{3}$ h.

On Saturday, Devon played the violin for $\frac{2}{3}$ h.

On Sunday, Devon increased the time he played by $\frac{2}{12}$ h.

a) Who played longer on Sunday?

b) For how much longer did this person play?

Sunday

a) Charla $\frac{2}{6} + \frac{1}{3}$

$\frac{2}{6} + \frac{2}{6} = \frac{4}{6}$

Devon $\frac{2}{3} + \frac{2}{12}$

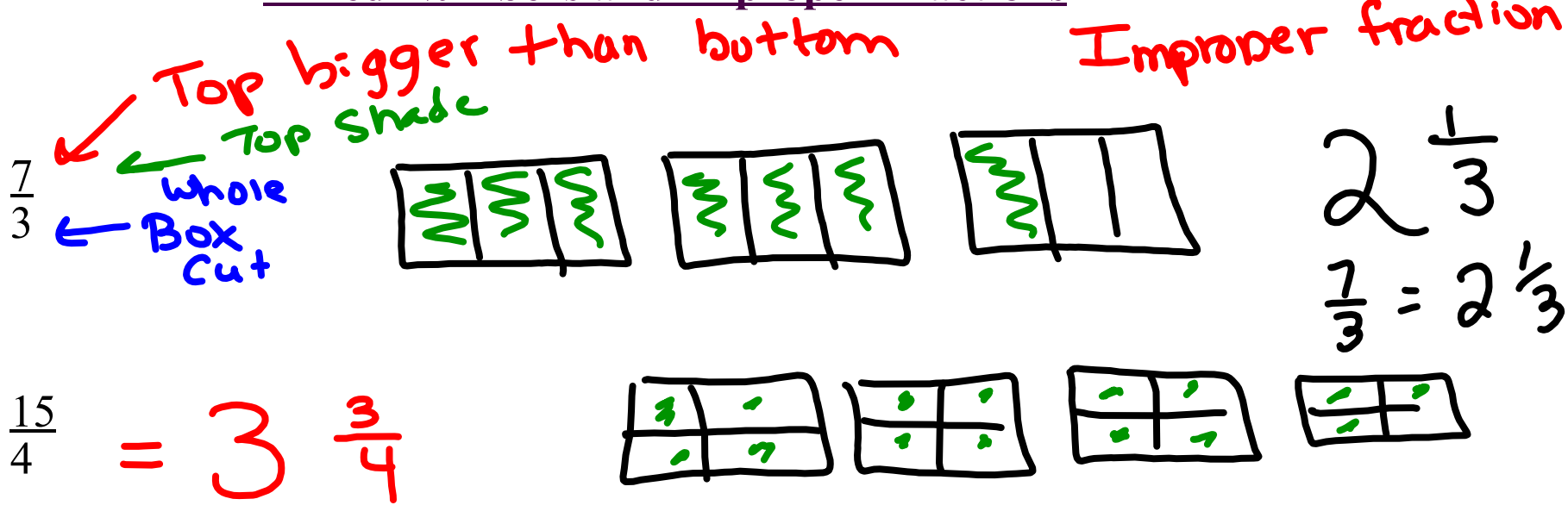
$\frac{8}{12} + \frac{2}{12} = \frac{10}{12} = \frac{5}{6}$

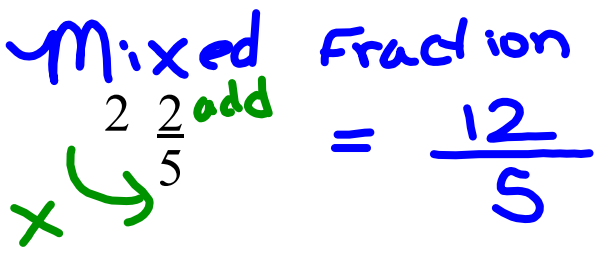
b) Devon played $\frac{2}{12}$ longer on Sunday

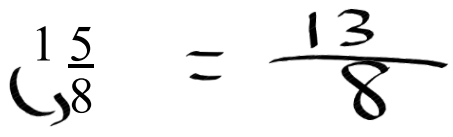
$\frac{5}{6} - \frac{4}{6} = \frac{1}{6}$ longer

Model

Mixed Numbers and Improper Fractions





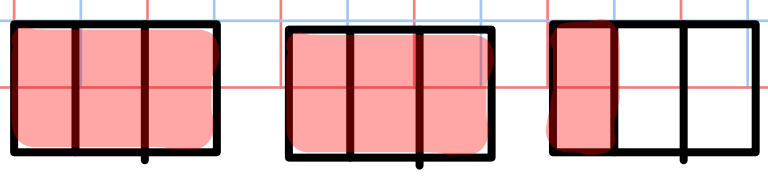


How do you write a mixed number as an improper fraction?

How do you write an improper fraction as a mixed number?

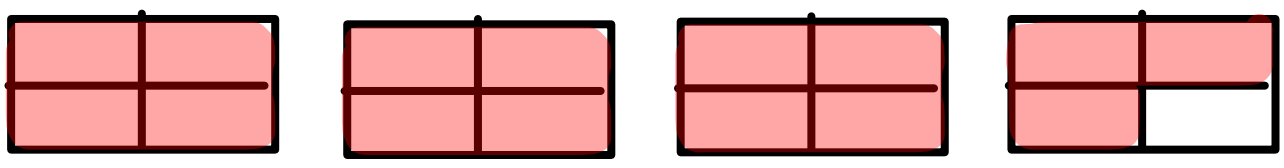
Mixed Numbers and Improper Fractions

$\frac{7}{3}$



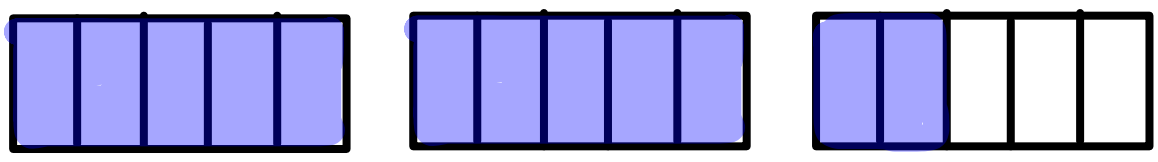
$2\frac{1}{3}$

$\frac{15}{4}$



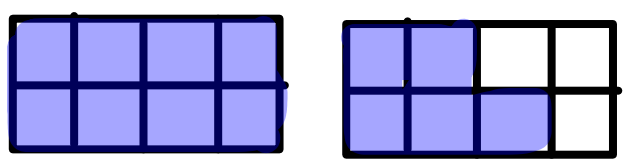
$3\frac{3}{4}$

$2\frac{2}{5}$



$\frac{12}{5}$

$1\frac{5}{8}$



$\frac{13}{8}$

How do you write a mixed number as an improper fraction?

How do you write an improper fraction as a mixed number?

Mixed Numbers and Improper Fractions

A mixed number contains a whole and a fraction, $8\ \frac{1}{3}$, $2\ \frac{5}{7}$

$2\frac{5}{7}$

An improper fraction is when the numerator is greater than the denominator,

Ex) $\frac{15}{7}$, $\frac{9}{2}$

To change a mixed number to an improper fraction, multiply the whole number by the denominator, add the numerator, and the denominator always stays the same.

Ex 1) $8\ \frac{1}{3}$ $\quad 8 \times 3 = 24$

$24 + 1 = 25$ (numerator)

$= \frac{25}{3}$ add

multiply

Ex 2) $2\ \frac{5}{7}$ $\quad 2 \times 7 = 14$

$14 + 5 = 19$ (numerator)

$= \frac{19}{7}$ add

multiply

To change an improper fraction to a mixed number, divide the numerator by the denominator, will be the numerator of the mixed number. The denominator stays the same.

Ex 1) $\frac{15}{7}$ $\quad 15 \quad 7 = 2$ Remainder 1 $\quad \frac{15}{7} = 2\ \frac{1}{7}$

Ex 2) $\frac{9}{2}$ $\quad 9 \quad 2 = 4$ remainder 1 $\quad 4\ \frac{1}{2}$

$= 2\frac{1}{7}$ ÷

$4\frac{1}{2}$ ÷

Mixed ⇒ Improper

Write the following as improper fractions:

(a) $2\frac{3}{7}$ add $\times 7$ $= \frac{17}{7}$

(b) $4\frac{1}{6}$ add $\times 6$ $\frac{25}{6}$

(c) $3\frac{4}{9}$ add $\times 9$ $\frac{31}{9}$

Improper ⇒ Mixed

Write the following as mixed numbers:

(a) $\frac{14}{3}$ $4\frac{2}{3}$

(b) $\frac{21}{5}$ $4\frac{1}{5}$

(c) $\frac{11}{4}$ $= 2\frac{3}{4}$

Class / Homework

Sheet Improper to Mixed # 1-18 ALL

Sheet 173 # 1-7 #2