

Warm Up Grade 8

Jan. 18, 2018

3 → 3, 6, 9, 12, 15, 18, 24, 27, 30, 33
 5 → 5, 10, 15, 20, 25, 30, 35...
 6 → 6, 12, 18, 24, 30

1) Add or subtract the following

a) $\frac{3 \times 7}{3 \times 12} + \frac{5 \times 4}{9 \times 4}$
 $= \frac{21}{36} + \frac{20}{36}$
 Just add numerator
 $= \frac{41}{36}$
 Improper
 $= 1 \frac{5}{36}$

Need C.D

b) $\frac{2}{3} + \frac{4}{5} + \frac{1}{6}$
 $\frac{20}{30} + \frac{24}{30} + \frac{5}{30}$
 $= \frac{49}{30}$
 $= 1 \frac{19}{30}$

c) $\frac{5}{6} - \frac{4}{15}$
 $\frac{25}{30} - \frac{8}{30}$
 $= \frac{17}{30}$

Warm Up Grade 8

Dec. 7. 2017

1) Add or subtract the following

$$a) \frac{3 \times 7}{3 \times 12} + \frac{5 \times 4}{9 \times 4} \left. \begin{array}{l} 12 \\ 9 \end{array} \right\}$$

$$\frac{21}{36} + \frac{20}{36}$$

$$\checkmark = \frac{41}{36}$$

$$= 1 \frac{5}{36}$$

$$b) \frac{2}{3} + \frac{4}{5} + \frac{1}{6}$$

$$\frac{20}{30} + \frac{24}{30} + \frac{5}{30}$$

$$= \frac{49}{30} \checkmark$$

$$\text{or}$$

$$1 \frac{19}{30}$$

3, 6, 9, 12, 15, 18, 21, 24, 27, 30
5, 10, 15, 20, 25

$$c) \frac{5 \times 5}{6 \times 5} - \frac{4 \times 2}{15 \times 2}$$

$$\frac{25}{30} - \frac{8}{30}$$

$$= \frac{17}{30} \checkmark$$

Review of Grade 7

1) Mentally calculate the following: (Show work)

(a) 10% of 90

9

(b) 50% of 42

21

(c) 25% of 60 = 15

(d) 20% of 66

10% of 66 = 6.6
 $\times 2$ $\times 2$

(e) 75% of 24

(f) 15% of 80

(g) 1% of 38

(h) 10% of 75

(i) 11% of 120

(j) 30% of 15

(k) 2% of 400

(l) 5% of 150

2) At the local music concert 300 people attended. 40% of the people were adults and the rest were students. A) How many adults attended? B) How many students attended?

3) Show work to prove >, < or =

a) $\frac{11}{7}$	$\frac{10}{9}$	b) $\frac{21}{8}$	$\frac{31}{12}$	c) $\frac{17}{7}$	$2\frac{3}{4}$
d) $1\frac{1}{2}$	$\frac{24}{16}$	e) $\frac{24}{5}$	$\frac{48}{10}$	f) $3\frac{4}{5}$	$\frac{78}{25}$

4) Determine a FRACTION between the two given numbers (SHOW WORK)

a) $\frac{4}{3}$ $\frac{7}{6}$

b) $2\frac{1}{10}$ $\frac{11}{5}$

c) $5\frac{1}{5}$ 5.3

d) 1.333 $\frac{10}{6}$

5) Put the following in order from least to greatest (Show work)

a) $\frac{5}{8}$, $\frac{3}{4}$, $\frac{8}{15}$, $\frac{2}{7}$, $\frac{9}{10}$

Chapter 3 Fractions

Name _____

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Grade 8 Day 3.5(Assignment)

Date _____

Evaluate each expression. (SHOW ALL WORK)

1) $2 - \left(-\frac{7}{4}\right)$

2) $(-2) - \frac{4}{7}$

3) $\frac{3}{2} - \frac{11}{6}$

4) $\left(-\frac{2}{7}\right) + \frac{3}{2}$

5) $(-2) + \frac{3}{2}$

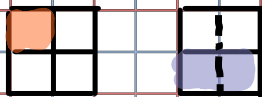
6) $1 - \left(-\frac{5}{3}\right)$

Sheet 151

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

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

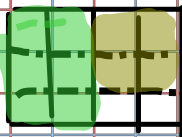
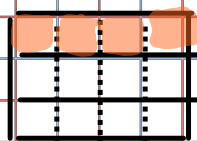
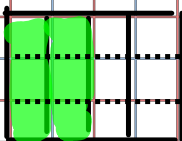
$= \frac{3}{4}$



d) $\frac{2}{4} + \frac{1}{3}$

$\frac{6}{12} + \frac{4}{12}$

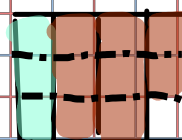
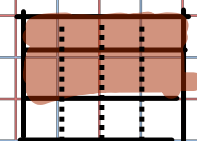
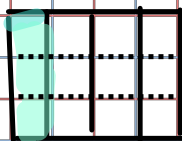
$\frac{10}{12} = \frac{5}{6}$



f) $\frac{1}{4} + \frac{2}{3}$

$\frac{3}{12} + \frac{8}{12}$

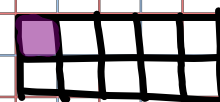
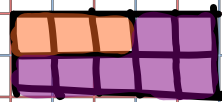
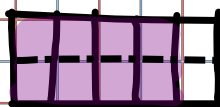
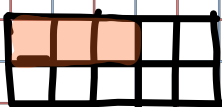
$\frac{11}{12}$



g) $\frac{3}{10} + \frac{4}{5}$

$\frac{3}{10} + \frac{8}{10}$

$\frac{11}{10}$ or $1\frac{1}{10}$



$$1a) \frac{3}{12} + \frac{7}{12}$$

$$\frac{10}{12} \text{ or } \frac{5}{6}$$

$$c) \frac{1}{4} + \frac{5}{12} \quad \frac{1}{4} = \frac{3}{12}$$

$$\frac{3}{12} + \frac{5}{12} = \frac{8}{12} \text{ or } \frac{2}{3}$$

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

$$\frac{6}{10} + \frac{5}{10} = \frac{11}{10}$$

$$h) \frac{7}{12} + \frac{3}{4} \quad \frac{3}{4} = \frac{9}{12}$$

$$\frac{7}{12} + \frac{9}{12} = \frac{16}{12}$$

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

$$i) \frac{9}{10} + \frac{1}{3}$$

$$\frac{27}{30} + \frac{10}{30} = \frac{37}{30}$$

$$2a) \frac{7}{8} - \frac{5}{8}$$

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

$$c) \frac{9}{10} - \frac{9}{100}$$

$$\frac{90}{100} - \frac{9}{100} = \frac{81}{100}$$

$$e) \frac{12}{15} - \frac{3}{5}$$

$$\frac{12}{15} - \frac{9}{15} = \frac{3}{15} = \frac{1}{5}$$

$$f) \frac{5}{5} - \frac{3}{4}$$

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

$$\text{or } \frac{4}{4} - \frac{3}{4} = \frac{1}{4}$$

$$h) \frac{9}{15} - \frac{1}{2}$$

$$\frac{18}{30} - \frac{15}{30} = \frac{3}{30} = \frac{1}{10}$$

$$i) \frac{7}{25} - \frac{1}{4}$$

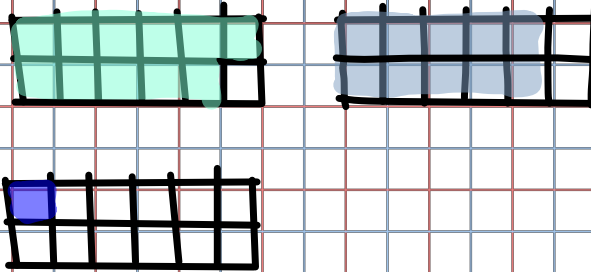
$$\frac{28}{100} - \frac{25}{100} = \frac{3}{100}$$

$$2 \quad 5)$$

$$\frac{11}{12} - \frac{5}{6}$$

$$\frac{11}{12} - \frac{10}{12}$$

$$\frac{1}{12}$$

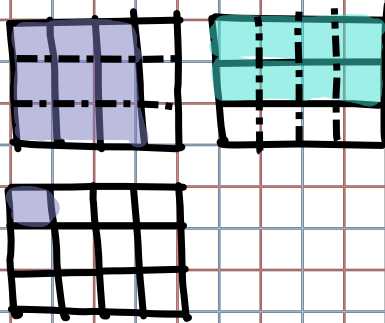


$$d1$$

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

$$\frac{9}{12} - \frac{8}{12}$$

$$\frac{1}{12}$$

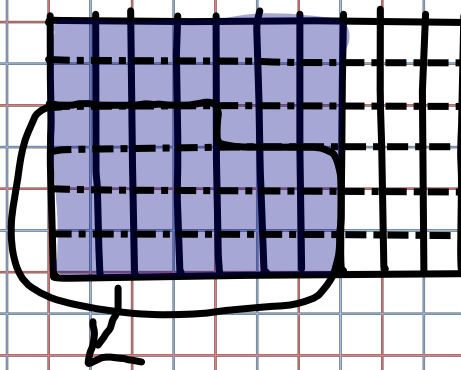


$$2)$$

$$\frac{7}{10} - \frac{5}{12}$$

$$\frac{42}{60} - \frac{25}{60}$$

$$\frac{17}{60}$$



$$3a) \frac{1 \times 3}{10 \times 3} + \frac{1 \times 10}{3 \times 10}$$

$$\frac{3}{30} + \frac{10}{30}$$

$$\frac{13}{30}$$

$$b) \frac{2 \times 4}{3 \times 4} - \frac{1 \times 3}{4 \times 3}$$

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

$$\frac{5}{12}$$

$$c) \frac{4 \times 3}{5 \times 3} + \frac{1 \times 5}{3 \times 5}$$

$$\frac{12}{15} + \frac{5}{15}$$

$$\frac{17}{15}$$

$$d) \frac{3 \times 5}{4 \times 5} - \frac{7 \times 2}{10 \times 2}$$

$$\frac{15}{20} - \frac{14}{20}$$

$$\frac{1}{20}$$

$$e) \frac{3 \times 2}{5 \times 2} + \frac{1 \times 5}{2 \times 5}$$

$$\frac{6}{10} + \frac{5}{10}$$

$$\frac{11}{10}$$

$$f) \frac{9 \times 4}{10 \times 4} - \frac{5 \times 5}{8 \times 5}$$

$$\frac{36}{40} - \frac{25}{40}$$

$$\frac{11}{40}$$

$$\frac{9}{10} - \frac{5}{8}$$

$$\frac{72}{80} - \frac{50}{80} = \frac{22}{80}$$

$$= \frac{11}{40}$$

Sheet 151

4 a) $\frac{4}{15} + \frac{1}{15} + \frac{7}{15}$

$$\frac{12}{15} = \frac{4}{5}$$

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

$$\frac{15}{30} + \frac{20}{30} + \frac{18}{30} = \frac{53}{30}$$

$$\frac{2}{3} = \frac{20}{30}$$

c) $\frac{2}{3} + \frac{1}{4} + \frac{3}{10}$

$$\frac{40}{60} + \frac{15}{60} + \frac{18}{60} = \frac{73}{60}$$

$$\frac{2}{3} = \frac{40}{60}$$

$$\frac{3}{4} = \frac{18}{24}$$

d) $\frac{3}{4} + \frac{5}{12} + \frac{1}{2}$

$$\begin{aligned} \frac{18}{24} + \frac{10}{24} + \frac{12}{24} &= \frac{40}{24} \\ &= \frac{20}{12} \\ &= \frac{5}{3} \end{aligned}$$

$$\begin{aligned} \frac{3}{4} + \frac{5}{12} + \frac{1}{2} \\ \frac{9}{12} + \frac{5}{12} + \frac{6}{12} \\ \frac{20}{12} \\ \frac{5}{3} \end{aligned}$$

5. $\frac{1}{2} + \frac{1}{3} + \frac{1}{4}$

$$\frac{6}{12} + \frac{4}{12} + \frac{3}{12} = \frac{13}{12}$$

or $1\frac{1}{12}$ hours doing laundry
or 1 hr 5 min

6. Doug

$$\frac{1}{4} + \frac{1}{8}$$

$$\frac{2}{8} + \frac{1}{8} = \frac{3}{8} = \frac{9}{24}$$

Ann

$$\frac{1}{6} + \frac{1}{6} = \frac{2}{6} = \frac{8}{24}$$

Doug ate $\frac{1}{24}$ more of the pie.

Gr. 7 Review sheet HOMEWORK

Any questions????

Adding and Subtracting Mixed Numbers

There are 2 ways that you can use to add or subtract mixed numbers.

Adding

$$2 \frac{1}{2} + 3 \frac{4}{5}$$

x 5 →
 5 x 2
 5 x 5

You can change to improper fractions, then add the fractions the same way you always do.

$$\frac{25}{10} + \frac{38}{10} = \frac{63}{10} = 6 \frac{3}{10}$$

OR

$$2 \frac{1}{2} + 3 \frac{4}{5}$$

You can add the whole numbers, then add the fractions. But remember that you can not have an answer being both a mixed number and an improper fraction.

$$2 + 3 = 5$$

$$\frac{1}{2} + \frac{4}{5}$$

need c.d

$$\frac{5}{10} + \frac{8}{10}$$

$$\frac{13}{10}$$

Mixed

$$5 + 1 \frac{3}{10} = 6 \frac{3}{10}$$

Subtracting

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

$$2 \times \frac{10}{3} - \frac{11}{6}$$

$$\frac{20}{6} - \frac{11}{6} = \frac{9}{6} = 1\frac{3}{6} \text{ Reduce } 1\frac{1}{2}$$

You can change to improper fractions, then subtract

← Need a C.D.

3 → 3, 6, 9, 12
6 → 6, 12, ...

OR

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

Whole

Fraction

$$3 - 1$$

$$2$$

$$1 + \frac{6}{6} + \frac{2}{6} - \frac{5}{6}$$

$$1 + \frac{8}{6} - \frac{5}{6}$$

$$1 + \frac{3}{6}$$

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

You can subtract the fraction parts first, then subtract the whole numbers, but remember that sometimes you may have to borrow from the whole numbers.

← Need C.D.

No can't do
Must borrow
from whole

Examples :

$$(a) 2 \frac{3}{10} + 1 \frac{5}{8}$$

$$4 \cdot \frac{23}{10} + \frac{13 \times 5}{8 \times 5}$$

$$\frac{92}{40} + \frac{65}{40}$$

$$\frac{157}{40} = 3 \frac{37}{40}$$

$$(b) 1 \frac{9}{10} + 1 \frac{1}{5}$$

$$(c) 3 \frac{2}{3} - 4 \frac{7}{8}$$

$$(d) 4 \frac{1}{4} - 2 \frac{3}{5}$$

Examples :

(a) $2\frac{3}{10} + 1\frac{5}{8}$

$$2\frac{12}{40} + 1\frac{25}{40}$$

$$3\frac{37}{40}$$

$$\begin{array}{r} 23 \\ 10 \end{array} + \begin{array}{r} 13 \\ 8 \end{array}$$
$$\begin{array}{r} 92 \\ 40 \end{array} + \begin{array}{r} 65 \\ 40 \end{array}$$
$$\begin{array}{r} 157 \\ 40 \end{array}$$

(b) $1\frac{9}{10} + 1\frac{1}{5}$

$$1\frac{9}{10} + 1\frac{2}{10}$$

$$2\frac{11}{10}$$

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

$$\frac{19}{10} + \frac{6}{5}$$

$$\frac{19}{10} + \frac{12}{10}$$

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

(c) $3\frac{2}{3} + 4\frac{7}{8}$

$$3\frac{16}{24} + 4\frac{21}{24}$$

$$7\frac{37}{24}$$

$$7 + 1\frac{13}{24}$$

$$8\frac{13}{24}$$

(d) $4\frac{1}{4} + 2\frac{3}{5}$

$$\frac{16}{4} + \frac{13}{5}$$

$$\frac{80}{20} + \frac{52}{20}$$

$$\frac{132}{20}$$

$$6\frac{12}{20}$$

Worksheets

Do both sides and change each fraction to an entire fraction before adding

Adding Mixed # 1, 5, 7, 10

Subtracting Mixed # 1, 5, 7, 10

Class/Homework

Sheet 153 #1-5



1(a,b,c,d,e,f), 2(a,b,c), 3(a,c) 4(a,b),5(b)

Attachments

Sheet 153 Adding & Subtracting MIXED FRactions PDF.pdf

adding_mixed_numbers.pdf

subtracting_mixed_numbers.pdf