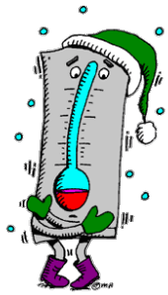
Curriculum Outcome

N1: Demonstrate an understanding of rational numbers by: comparing and ordering rational numbers; solving problems that involve arithmetic operations on rational numbers.

Student Friendly:
"Adding Fractions and Adding Decimals"



Warm Up

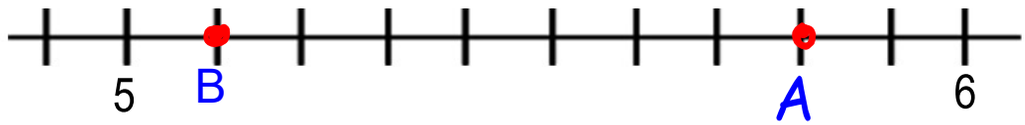
Grade 9

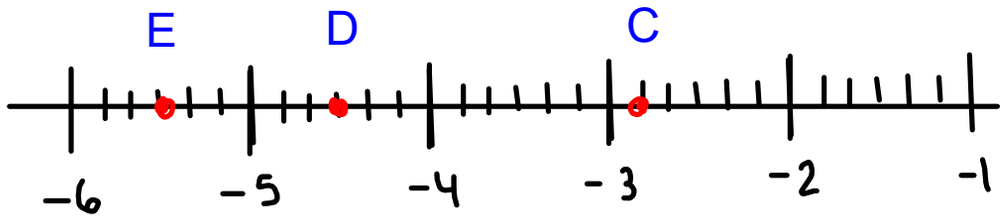
Determine the sum of each of the following

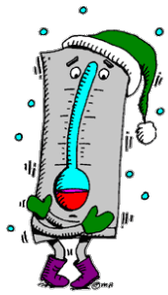
1) $\frac{-3}{7} + \left(\frac{-3}{7}\right) =$

2) a) 2.7 + 1.8 b) -3.7 + 4.5 c) 2.7 + (-8.7)

3) Express unknowns as a mixed fraction.







Warm Up

Grade 9

Determine the sum of each of the following

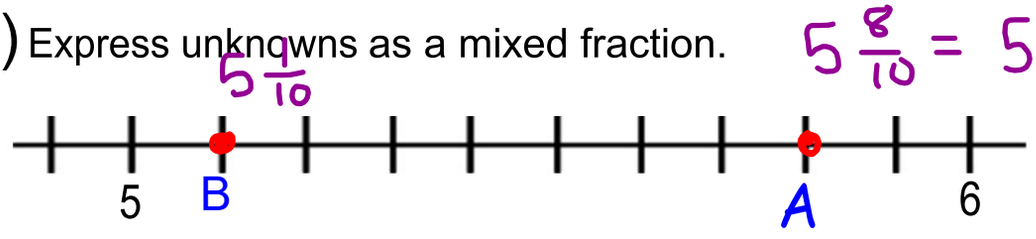
1) $\frac{-3}{7} + \left(\frac{-3}{7}\right) = \frac{-6}{7}$

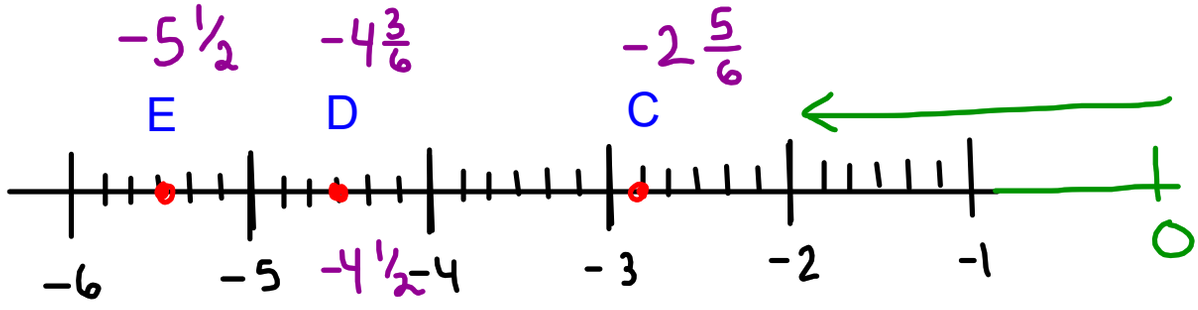
2) a) 2.7 + 1.8 = 4.5

b) -3.7 + 4.5 = 0.8

c) 2.7 + (-8.7) = -6

3) Express unknowns as a mixed fraction.





Class/Homework

LAST NIGHT

Page 101

Questions 17ac, 21, 24ac,

Page 111 - 112

8

9 (acf) Use Calculators

Copy Down

Adding Fractions

When adding fractions you need a COMMON DENOMINATOR:

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

$= \frac{1}{8}$

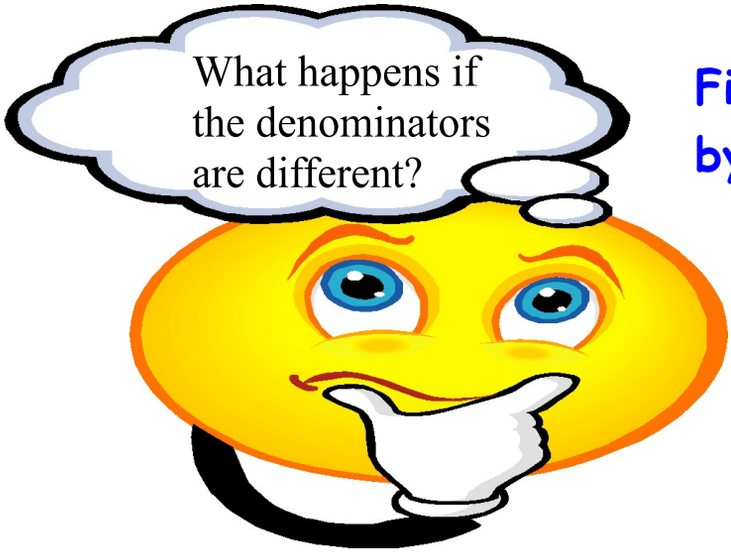
2) $\frac{-8}{7} + \frac{-4}{7}$

$= \frac{-12}{7}$

$$\frac{3}{5} + \frac{4}{-5}$$

$$\frac{3}{5} + \frac{-4}{5}$$

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



Find a Common Denominator by determining the LCM.

L owest

C ommon

M ultiple

$$\frac{3}{4} + \frac{-5}{6}$$

Find the LCM first!

4, 8, 12, 16

6, 12, 18

x3 x2

$$= \frac{9}{12} + \frac{-10}{12}$$

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

Find a common denominator:

$$\frac{4}{5} + \frac{8}{3}$$

x3 x5

$$= \frac{12}{15} + \frac{40}{15}$$

$$= \frac{52}{15}$$

$$= 3\frac{7}{15}$$

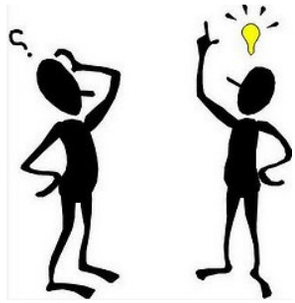
Multiples

5
10
15
20

3
6
9
12
15

What about mixed numbers?

Option 1



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

Step 1: Write each mixed number as an improper fraction.

$\left[\frac{7}{3} + \frac{13}{5}\right]$ ×3

Step 2: Find a common denominator, and then add numerators.

×5

$\frac{35}{15} + \frac{39}{15}$

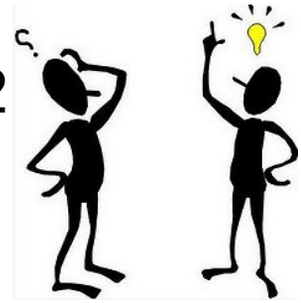
$= \frac{74}{15}$

$= 4\frac{14}{15}$

What about mixed numbers?

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

Option 2



Step 1: Add Integers together .

$2 + 2 = 4$

Step 2: Add Fractional parts together (must have common denominators).

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

x5: $\frac{5}{15} + \frac{9}{15}$ x3

$= \frac{14}{15}$

$4 + \frac{14}{15} = 4\frac{14}{15}$

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

$\frac{7}{4} + \frac{13}{5}$

$\times 5$ $\times 4$

$\frac{35}{20} + \frac{52}{20}$

$\frac{87}{20}$

$4\frac{7}{20}$

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

$1 + 2 = 3$

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

$\frac{15}{20} + \frac{12}{20} = \frac{27}{20} = 1\frac{7}{20}$

$3 + 1\frac{7}{20} =$

$4\frac{7}{20}$

$$1\frac{1}{2} = \frac{3}{2} = 1.5$$

$$-1\frac{1}{2} = \frac{-3}{2} = -1.5$$

$3\frac{4}{5} = \frac{19}{5}$

$-3\frac{4}{5} = \frac{-19}{5}$

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

$\frac{-5}{3} + \frac{9}{4}$

x4 x3

$\frac{-20}{12} + \frac{27}{12}$

$= \frac{7}{12}$

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

$-1 + 2 = \boxed{1}$

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

x4 x3

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

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

$1 + \frac{-5}{12}$

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

$\frac{7}{12}$