

+ / - / x / ÷
Performing Operations on Fractions and
Mixed Numbers

example . multiply

• integers: + / - whole numbers

• natural numbers + whole numbers

step i. Convert all mixed numbers to fractions.

B.
E
D
M
A
S

step ii. Do operation following BEDMAS.

$$-\left(2 \frac{2}{5}\right) \times \left(1 \frac{5}{6}\right) \times \frac{2}{1}$$

convert convert

$$-\left(\frac{5 \times 2}{5 \times 1} + \frac{2}{5}\right) \times \left(\frac{6 \times 1}{6 \times 1} + \frac{5}{6}\right) \times \frac{2}{1}$$

$$-\left(\frac{10}{5} + \frac{2}{5}\right) \times \left(\frac{6}{6} + \frac{5}{6}\right) \times \frac{2}{1}$$

$$-\left(\frac{12}{5}\right) \times \left(\frac{11}{6}\right) \times \frac{2}{1}$$

$$-\frac{12}{5} \times \frac{11}{6} \times \frac{2}{1}$$

$$\frac{-12 \times 11 \times 2}{5 \times 6 \times 1}$$

-8.8

$$\frac{-264}{30}$$

÷ 6
÷ 6

GCD = 6?

→ to simplify

-8.8

$$\frac{-44}{5}$$

← simplified form

cat = chat
 english form french form

same question

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

$$-\frac{12}{5} \times \frac{11}{6} \times \frac{2}{1}$$

$$\frac{-\overset{2}{\cancel{12}} \times 11 \times 2}{5 \times \cancel{6} \times 1}$$

$$\frac{-2 \times 11 \times 2}{5 \times 1}$$

$$\boxed{\frac{-44}{5}}$$

step 1: convert mixed #'s to fraction using calculator

$$\boxed{a \frac{b}{c}}$$

mixed #

$$\boxed{\frac{a}{b}}$$

fraction

change

Do

E 7.4 1a)

P 7.12 all the way to 7.19

$$c) \left(6\frac{1}{8}\right) \times \frac{24}{7}$$

$$\left(6 \text{ and } \frac{1}{8}\right) \times \frac{24}{7}$$

$$\left(\frac{10}{8} \times 6 + \frac{1}{8}\right) \times \frac{24}{7}$$

$$\left(\frac{48}{8} + \frac{1}{8}\right) \times \frac{24}{7}$$

$$\frac{48 + 1}{8} \times \frac{24}{7}$$

$$\frac{49}{8} \times \frac{24}{7}$$

$$\frac{49 \times 24}{8 \times 7}$$

$$\frac{1176}{56}$$

$$21$$

Divide

$$\frac{3}{1} \div \frac{0}{0} \quad 4 \frac{2}{3}$$

$$\frac{3}{1} \div \frac{0}{0} \left(\frac{4 \times 3}{1 \times 3} + \frac{2}{3} \right)$$

$$\frac{3}{1} \div \frac{0}{0} \left(\frac{12}{3} + \frac{2}{3} \right)$$

$$\frac{3}{1} \div \frac{0}{0} \quad \frac{14}{3}$$

$$\frac{3}{1} \times \frac{3}{14}$$

$$\frac{3 \times 3}{1 \times 14}$$

$$\boxed{\frac{9}{14}}$$

Step 1: mixed # into fractions. And integers into fractions.

Divide

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

$$\frac{22}{4}$$

$$\frac{-11}{4}$$

$$\frac{22}{4}$$

$$-\frac{11}{4} \div \frac{22}{4}$$

$$-\frac{11}{4} \times \frac{4}{22}$$

$$\frac{-11 \times 4}{4 \times 22}$$

$$\frac{-11 \times 4}{22 \times 4}$$

$$\frac{-11 \times 4}{22 \times 4}$$

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

Do 8.13
Ex 8.3

and

Do 8.17

Q. 2

LCD = 11
BEDMAS QUESTION
AT 1:10 - 1:15

$$1. \frac{3}{4} \div \frac{1}{2} + 6 \times \frac{2}{3}$$

$$\frac{3}{4} \times \frac{2}{1} + \frac{6}{1} \times \frac{2}{3}$$

$$\frac{3 \times 2}{4 \times 1} + \frac{6}{1} \times \frac{2}{3}$$

$$\frac{6}{4} + \frac{6}{1} \times \frac{2}{3}$$

$$\frac{3}{2} + \frac{6 \times 2}{1 \times 3}$$

$$\frac{3}{2} + \frac{6 \times 2}{1 \times 3}$$

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

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

$$\frac{3}{2} + \frac{8}{2}$$

$$\frac{3+8}{2}$$

$$\boxed{\frac{11}{2}} = 5 \frac{1}{2}$$

5.5

$$\begin{array}{r} 2 \overline{) 11} \\ \underline{-10} \\ 1 \end{array}$$

5.5

step i: Convert to fraction

step ii: Follow

x B
 v E
 → D | from left
 → M | to right
 A
 S

Homework

3 handout
and
especially 3rd
handout.

Bring BEDMAS Question
Tomorrow.

Monday: 1st in-class
assignment
everyone in
except
french people.