

Warm-Up

September 20, 2019

Zoe owes her mother \$36.25, then Zoe borrows another \$25.35.

- A. Write each amount as a rational number.

-36.25
owes

-25.35
borrow

- b. Write an expression for the amount Zoe owes. How much does she owe?

Expression $-36.25 + -25.35$
Equation $-36.25 + -25.35 = -61.60$

- c. Zoe pays back 14.75.

Write an equation for the amount Zoe now owes. How much does she owe?

$$-61.60 + 14.75 = -46.85$$

$$-2^{1/2} + \frac{4}{-3} - -4^{1/8}$$

$$-2^{1/2} + \frac{4}{-3} - -4^{1/8}$$

$$\begin{array}{r} \times 12 \\ \times 12 \end{array} \frac{-5}{2} + \begin{array}{r} \times 8 \\ \times 8 \end{array} \frac{-4}{3} - \frac{33 \times 3}{8 \sqrt{3}}$$

$$\text{LCM} = 24$$

$$\frac{-60}{24} + \frac{-32}{24} - \frac{-99}{24}$$

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

Multiplying Rational Numbers

Section 3.4

Positive x positive $(+)(+) = (+)$

Negative x negative $(-)(-) = (+)$

Negative x positive $(-)(+) = (-)$

What will the sign be???

A. $-4 \overset{\cdot}{x} -1 x 9 x -3 = (-)$

B. $5 x 4 x 3 x -3 x -4 x 3 = (+)$

Multiplying Fractions

Multiply the $\frac{\text{NUMERATOR} \times \text{NUMERATOR}}{\text{DENOMINATOR} \times \text{DENOMINATOR}}$



[multiply]

Find the product for the following. Express your answer in lowest terms and as a mixed number when necessary.

$$\frac{6}{7} \times \frac{5}{6} = \frac{30}{42}$$

$$\frac{15}{21} = \left(\frac{5}{7}\right)$$

Brackets



When brackets are placed beside each other it is a multiplication therefore the "x" is not needed.

$$-3 \times -4 = 12$$

$$(-3)(-4) = 12$$

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

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

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

Evaluate and express in lowest terms:

$$\left(-\frac{2}{5}\right) \times \frac{7}{-3}$$

$$-\frac{2}{5} \times -\frac{7}{3}$$

$$\frac{14}{15}$$

$$\left(\frac{5}{6}\right) \times -3\frac{1}{2}$$

$$\frac{5}{6} \times -\frac{7}{2}$$

$$\frac{-35}{12}$$

$$-2\frac{11}{12}$$

c)

$$\left(-\frac{1}{6}\right) \left(1\frac{3}{4}\right)$$

$$\overset{-\frac{1}{6} + \frac{7}{4}}{\left(-\frac{1}{6}\right) \left(\frac{7}{4}\right)}$$

$$\frac{-7}{24}$$

d)

$$\left(2\frac{4}{5}\right) - \left(-\frac{3}{6}\right)$$

$$\overset{\times 6}{\frac{14}{5}} - \overset{\times 5}{-\frac{3}{6} \times 5}$$

$$\frac{84}{30} - \frac{15}{30}$$

$$\frac{99}{30} = 3\frac{3}{10}$$

$$\frac{1}{3} \times \frac{2}{-7} \times -2\frac{3}{4}$$

$$\frac{1}{3} \times \frac{2}{7} \times \frac{11}{4}$$

$$\frac{22}{84}$$
$$\frac{11}{42}$$

$$A. \quad \frac{2}{-5} + -3\frac{1}{6}$$

$$\overset{x6}{x6} \frac{-2}{5} + \frac{-19 \times 5}{6 \times 5}$$

$$\frac{-12}{30} + \frac{-95}{30}$$

$$\frac{-107}{30}$$

$$\textcircled{-3\frac{17}{30}}$$

$$B. \quad \left(\frac{7}{-8}\right)\left(-2\frac{1}{4}\right)$$

$$\frac{-7}{8} \times \frac{-9}{4}$$

$$\frac{63}{32}$$

$$\textcircled{1\frac{31}{32}}$$

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#4. Predict the Sign!!!

#7.

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#12

* #14 *

Answer
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