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:
“BEDMAS with fractions and decimals"

Grade 9 Warm Up

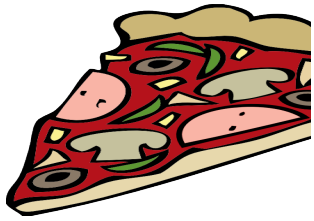
1) Determine the missing number in each statement. (Show Work)

a) ____ ÷ 18.6 = 2.1

b) ____ x −2.5 = 7.35

c) $\frac{3}{4} \div \square = \frac{7}{12}$

d) $\square \div \frac{2}{5} = \frac{3}{7}$



Grade 9 Warm Up

1) Determine the missing number in each statement. (Show Work)

$15 \div 3 = 5$

$\square = 3 \times 5$

$3 \times 4 = 12$

$\square = 12 \div 4$

a) $\square \div 18.6 = 2.1$

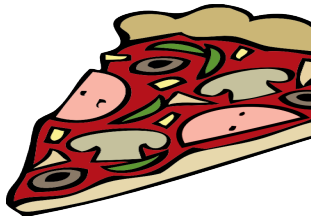
$\square = 18.6 \times 2.1$

$\square = 39.06$

b) $\square \times -2.5 = 7.35$

$\square = 7.35 \div (-2.5)$

$\square = -2.94$



$15 \div \square = 5$

$\square = 15 \div 5$

$\square \div 3 = 5$

$\square = 3 \times 5$

c) $\frac{3}{4} \div \square = \frac{7}{12}$

$\square = \frac{3}{4} \div \frac{7}{12}$

$\square = \frac{3}{\cancel{4}_1} \times \frac{\cancel{12}^3}{7}$

$\square = \frac{3}{1} \times \frac{3}{7}$

$\square = \frac{9}{7}$

d) $\square \div \frac{2}{5} = \frac{3}{7}$

$\square = \frac{2}{5} \times \frac{3}{7}$

$\square = \frac{6}{35}$

Section 3.6
Order of Operations with Rational Numbers

Remember from operations

"BEDMAS".....order of

In the order that they appear

rder of Operations

with

Rational Numbers

BEDMAS

$$(-0.8) + 1.2 \div (-0.3) \times 1.5$$

$= (-0.8) + (-4) \times 1.5$

$= (-0.8) + (-6)$

$= -6.8$

$$\left(\frac{2}{3}\right)^{12} = \frac{4096}{531441}$$

$$\frac{6}{5} \times \left(\frac{1}{4} + \frac{1}{4}\right)^2 - \frac{3}{20} \div \frac{2}{5}$$

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

$$\frac{6}{5} \times \left(\frac{1}{2}\right)^2 - \frac{3}{20} \div \frac{2}{5}$$

$$\frac{\cancel{6}^{3}}{5} \times \left(\frac{1}{\cancel{2}_{2}\cancel{4}}\right) - \frac{3}{20} \div \frac{2}{5}$$

$$\frac{3}{10} - \frac{3}{\cancel{20}_{4}} \times \frac{\cancel{5}^{1}}{2}$$

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

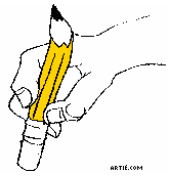
$$\frac{12}{40} - \frac{15}{40}$$

$$\frac{-3}{40}$$

Using the Order of Operations with Fractions

Remember fractions are just numbers

BEDMAS



1) $\left(-\frac{3}{5}\right)\left(\frac{2}{5}\right)-\left(\frac{7}{30}\right)\div\left[\frac{1}{2}+\left(-\frac{1}{6}\right)\right]$

$\left[\frac{3}{6}+\left(\frac{-1}{6}\right)\right]$

$\left[\frac{2}{6}\right]$

$\left(\frac{-3}{5}\right)\left(\frac{2}{5}\right)-\frac{7}{30}\div\left[\frac{1}{3}\right]$

$\frac{-6}{25}-\frac{7}{\cancel{30}_{10}}\times\frac{\cancel{3}^{1}}{1}$

$\frac{7}{10}\times\frac{1}{1}$

$-\frac{6}{25}-\frac{7}{10}$

$\frac{-12}{50}-\frac{35}{50}$

$=-\frac{47}{50}$

Class / Homework

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Write out the questions and show all work!
(Hint take your time and do one step at a time)

Questions

3,
4, a