# Grade 9 Warm Up

Worksheet: To be handed in (Do it on your own...and no notes)

1) Determine the missing number in each division statement.

a) ____ ÷ 7.25 = 2.1

$15.225$ ✗

b) ____ x −0.7 = 0.896

$-1.28$

c) $\frac{91}{42} \div \boxed{\phantom{x}} = \frac{13}{7}$

$\frac{91}{42} \div \frac{13}{7} = \frac{91}{42} \times \frac{7}{13} = \frac{7}{6}$
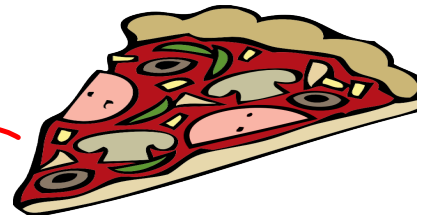
## Word Problems

1) A pizza cost $25.98. If 27 people are sharing the cost, what was the cost for each person?

$\boxed{\dfrac{7}{6}}$

$25.98 \div 27 = \$0.96$

## Grade 9 Warm Up

1) Determine the missing number in each division statement.

a) $\dfrac{\phantom{..}}{\phantom{..}} \div 7.25 = 2.1$

$15.225$

b) _____ $x -0.7 = 0.896 \div -6.7$
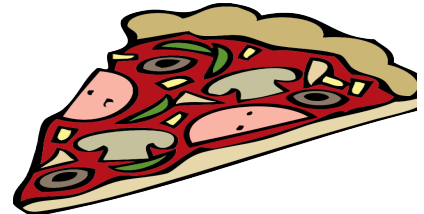
$-1.28$

c) $\dfrac{91}{42} \div \square = \dfrac{13}{7}$

$\dfrac{91}{42} \div \dfrac{13}{7} = \dfrac{91}{42} \times \dfrac{7}{13}$

### Word Problems

1) A pizza cost $25.98.  If 27 people are sharing the cost, what was the cost for each person?

$\dfrac{7}{6} \times \dfrac{1}{1} = \dfrac{7}{6}$

$25.98 \div 27$

$\$0.96$

# Calculator Use

$(2)^4 = 2 \times 2 \times 2 \times 2$

$= 16$

$x^2 \quad x^3$

Use $x^y$ or $y^x$ or ^ for exponents on calculators

$(3)^2$

$3 \times 3$

$9$

$(-3)^2$

$(-3)(-3)$

$9$

$(-2)^3$

$(-2)(-2)(-2)$

$-8$

$-3^2$

$-(3 \times 3)$

$-9$

$-9$

# Section 3.6
## Order of Operations with Rational Numbers
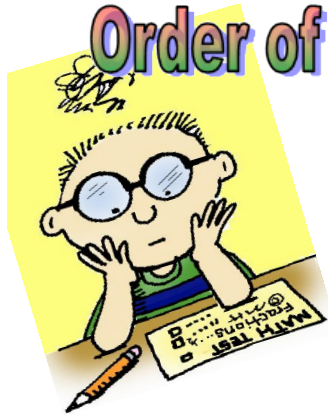
Remember from operations

"BEDMAS".....order of

In the order that they appear

Recall

Evaluate the following

1)  $(-5) - 3[18 \div (-3)]^2$  #1

$(-5) - 3(-6)^2$  #2

$(-5) - 3(36)$  #3

$(-5) - 108$  #4

$-113$

## Do we need more practice?

1)

$3 - [(-5) + 1]^3$

$3 - (-4)^3$

$3 - (-64)$

$67$

2)

$[(-3 + 5)^2 + 6(-2) + 7(3)]^2$

$[(2)^2 + (-12) + 21]$

$(4 + -12 + 21)^2$

$(13)^2$

$169$

# Using the Order of Operations with Decimals

Evaluate the following:

It is no difference with decimals....follow BEDMAS

With decimals you may need to round your final answers
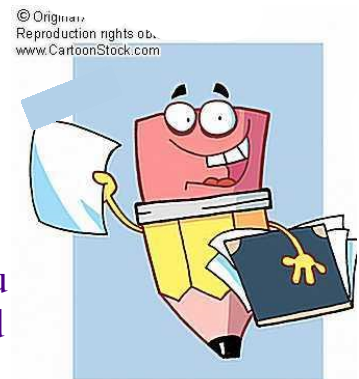
1) $(-1.3) + 0.8 \div (-0.2) \times 5$

= $(-1.3) + (-4) \times 5$

$(-1.3) + -20$

-21.3

2) $(-3.6) - 1.7 \div [0.6 - (-0.8)]^2$

= $(-3.6) - 1.7 \div [1.4]^2$

= $(-3.6) - 1.7 \div 1.96$

= $(-3.6) - 0.867346938$

= -4.467346939

this number does not terminate

$$\left[ (-3+5)^2 + 6(-2) + 7(3) \right]^2$$

$$\left[ (2)^2 + 6(-2) + 7(3) \right]^2$$

$$\left[ 4 + 6(-2) + 7(3) \right]^2$$

$$\left[ 4 + (-12) + 21 \right]^2$$

$$\left[ -8 + 21 \right]^2$$

$$\left[ 13 \right]^2$$

$$= 169$$

# Fractions

$$\left(\frac{2}{5}\right)^2 \div \left(\frac{2}{3} + \frac{4}{5}\right)$$

$$\left(\frac{2}{5} \times \frac{2}{5}\right) \div \left(\frac{10}{15} + \frac{12}{15}\right)$$

$$\left(\frac{4}{25}\right) \div \left(\frac{22}{15}\right)$$

$$\frac{\overset{2}{\cancel{4}}}{\underset{5}{\cancel{25}}} \times \frac{\overset{3}{\cancel{15}}}{\cancel{22}} =$$

$$\frac{6}{55}$$

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

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

$$\frac{6}{5} \times \frac{2}{4} \times \frac{2}{4} - \frac{3}{20}$$

$$\frac{6}{5} \times \frac{4}{4} - \frac{3}{20}$$

$$\frac{6}{20} - \frac{3}{20} = \frac{3}{20}$$

## Class / Homework

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Questions: 3, 5