## 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"**


# Section 3.6
## Order of Operations with Rational Numbers

Remember from operations

"BEDMAS".....order of

In the order that they appear

4.


# Warm Up


$$\left(-\frac{1}{2}\right)^2 - \left(-\frac{2}{3}\right) \div \left[\frac{1}{3} + \left(-\frac{3}{12}\right)\right]$$

$\div \left[\frac{4}{12} + \frac{-3}{12}\right]$

$\left(\frac{-1}{2}\right)^2 - \left(\frac{-2}{3}\right) \div \left[\frac{1}{12}\right]$

$\left(\frac{1}{4}\right) - \left(\frac{-2}{3}\right) \div \left[\frac{1}{12}\right]$

$\frac{1}{4} - \left[\frac{-2}{1\cancel{3}} \times \frac{4\cancel{12}}{1}\right]$

$\frac{1}{4} - \left[\frac{-8}{1}\right]$

$\frac{1}{4} + \left[\frac{+32}{4}\right]$

$= \frac{33}{4}$

$= 8\frac{1}{4}$

# Do we need more practice?

1)

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

Remember to switch mixed to improper fractions

$$-\frac{7}{4}-\left(-\frac{7}{2}+5\right)\left(-\frac{7}{2}+5\right)$$

$$\left(-\frac{7}{2}+\frac{10}{2}\right)\left(-\frac{7}{2}+\frac{10}{2}\right)$$

Make common denominators inside brackets

$$-\frac{7}{4}-\left(\frac{3}{2}\right)\left(\frac{3}{2}\right)$$

Complete Brackets

Multiply

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

$$-\frac{16}{4}=-4$$

On Test

- $$\frac{4.5 - 2.3 \div (-0.5)}{(-5.4 + 3.5)^2 - 8.9}$$

Top

$4.5 - 2.3 \div (-0.5)$

$4.5 + (+4.6)$

$9.1$

Bottom

$(-5.4 + 3.5)^2 - 8.9$

$(-1.9)^2 - 8.9$

$3.61 - 8.9$

$-5.29$

$$\frac{9.1}{-5.29}$$

$$= -1.72$$

3. The following formula is used to convert Fahrenheit to Celsius, where C represents celsius and the F is Fahrenheit.


$$C = \frac{F - 32}{1.8}$$

Use the formula to convert 18°F to Celsius.

ERASE to see answer

$$C = \frac{18 - 32}{1.8} = \frac{18}{1.8} - \frac{32}{1.8}$$

$$C = \frac{-14}{1.8}$$

$$C = -7.77$$

# Class / Homework

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**3**
**5,**
**4 a,c,d**
**7 a,b d**
**8 a,b**
**10**
**12 a,b,d**
**13 a,c,d**

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