

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"



Warm Up



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

↓

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

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

$$\frac{-2}{3} \times \frac{4}{12}$$

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

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

$$\frac{1}{4} + \left(\frac{+32}{4}\right)$$

$$= \frac{33}{4}$$

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



Do we need more practice?



$$\begin{aligned} 1) & \left(-1\frac{3}{4}\right) - \left(-3\frac{1}{2} + 5\right) \left(-3\frac{1}{2} + 5\right) \\ & = \left(-1\frac{3}{4}\right) - \left(\frac{-7}{2} + \frac{5}{1}\right) \left(\frac{-7}{2} + \frac{5}{1}\right) \\ & = \frac{-7}{4} - \left(\frac{-7}{2} + \frac{10}{2}\right) \left(\frac{-7}{2} + \frac{10}{2}\right) \\ & = \left(\frac{-7}{4}\right) - \left(\frac{3}{2}\right) \left(\frac{3}{2}\right) \\ & = \frac{-7}{4} - \frac{9}{4} \\ & = \frac{-16}{4} \\ & = -4 \end{aligned}$$

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

$$(-1.9)^2 - 8.9$$

$$3.61 - 8.9$$

$$= -5.29$$

$$\frac{\text{Top}}{\text{bottom}} = \frac{9.1}{-5.29} = -1.72$$

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

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

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

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

$$C = -7.7$$

Class / Homework

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3

4

7 a,b d

8 a,b

10

12 a,c,d

13 a,c,d

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

$$\begin{aligned} & (2.3 - 4.2) \times (4.4)^2 \div 2.1 \\ & (-1.9) \times (19.36) \div 2.1 \\ & -36.784 \div 2.1 \\ & = -17.5162 \dots \end{aligned}$$

6. ~~Estimate~~ which expression has the greatest value. Then use a calculator to evaluate each expression to verify your prediction.

$$\begin{aligned} \text{a) } & 9.1 - 3.5 \times (4.2)^2 \\ & 9.1 - 3.5 \times 17.64 \\ & 9.1 - 61.74 \\ & = -52.64 \end{aligned}$$

$$\begin{aligned} \text{b) } & (9.1 - 3.5) \times (4.2)^2 \\ & 5.6 \times 17.64 \\ & 98.784 \end{aligned}$$