

Lesson 10:

The Four Operations <sup>+</sup> <sup>-</sup> <sup>x</sup> <sup>÷</sup>  
on Fractions

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e.x.

$$1 \frac{1}{2} - 2 \times (-2 \frac{1}{4}) - \frac{15}{2}$$

Recall:

step i:

Read and put  
x signs

step ii: follow

- ① B Exponents
- ② D go left to right
- ③ M " "
- ④ S " "

step iii: To keep it

easy convert all  
mixed #'s to improper  
fractions (or not, for +)

Evaluate:

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

$$2 \left[ -\frac{1}{2} + \frac{1}{4} \div \frac{3}{4} \left( \frac{4}{12} - \frac{9}{12} \right) \right]$$

$$2 \left[ -\frac{1}{2} + \frac{1}{4} \div \frac{3}{4} \left( -\frac{5}{12} \right) \right]$$

$$2 \left[ -\frac{1}{2} + \frac{1}{4} \times \frac{4}{3} \left( -\frac{5}{12} \right) \right]$$

$$2 \left[ -\frac{1}{2} + \frac{1}{3} \left( -\frac{5}{12} \right) \right]$$

$$2 \left[ -\frac{1 \times 18}{2 \times 18} + \frac{-5}{36} \right]$$

$$2 \left[ \frac{-18}{36} + \frac{-5}{36} \right]$$

$$2 \left[ \frac{-18 + (-5)}{36} \right]$$

$$\frac{2 \times}{1} \left( \frac{-23}{36} \right)$$

$$\frac{-23}{18}$$

done!

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is prime?

yeah probably

You do: handouts (a few q.)

→ quiz.

law of signs for addition

+	+	=	+
-	-	=	-
+	-	=	same sign as "bigger" number

BEDMAS

not needed to get same denominators for  $\times$  and  $\div$

law of signs for  $\times$ ,  $\div$ , and adjacent signs

+	+	=	+
-	-	=	+
+	-	=	-