

B: Problem Solving with Rational Numbers in Decimal Form

Multiplying : Dividing

- You can use a calculator if division (\div or $\frac{\#}{\#}$) is present.

Examples:

2. Calculate *No Calculator!*

a) $5.4 \times (-3.2)$ *ignore sign and start.*

$$\begin{array}{r} 5.4 \\ \times 3.2 \\ \hline 108 \\ 1620 \\ \hline 17.28 \end{array}$$

** 2 numbers behind decimal signs in question so 2 numbers must be behind the decimal in your answer.*

$$\boxed{= -17.28}$$

sign goes in at the end.

b) $(27.8 - 45.2) \times (36.4 - 97.8)$

$$= -17.4 \times -61.4$$

$$\boxed{= +1068.36}$$

No Calculator.

$$\begin{array}{r} 34 \\ 48.2 \\ -27.8 \\ \hline 17.4 \end{array}$$

$$\begin{array}{r} 97.8 \\ -36.4 \\ \hline 61.4 \end{array}$$

$$\begin{array}{r} 42 \\ 2+ \\ 17.4 \\ \times 61.4 \\ \hline \end{array}$$

$$\begin{array}{r} 696 \\ 1740 \\ 104400 \\ \hline \end{array}$$

$$\underline{1068.36}$$

$$c) \frac{26.3 \times 14.7}{19.5}$$

Calculator!

- Put brackets around top & bottom always.

$$= \frac{(26.3 \times 14.7)}{(19.5)}$$

Brackets

$$= \frac{386.61}{19.5}$$

Division

$$= 19.83$$

$$d) \frac{109.4}{9.2 \times 4.1}$$

Calculator!

$$= \frac{(109.4)}{(9.2 \times 4.1)}$$

Brackets.

$$= \frac{109.4}{37.72}$$

Division

$$= 2.90$$

$$e) \frac{32.5 - 16.9}{12.8 \times 3.5}$$

Calculator!

$$= \frac{(32.5 - 16.9)}{(12.8 \times 3.5)}$$

Brackets

$$= \frac{15.6}{44.8}$$

$$= 0.35$$

$$f) -8.72 + 2.4[5.6 + (-7)]$$

$$= -8.72 + 2.4[5.6 - 7]$$

$$= -8.72 + 2.4[-1.4]$$

$$= -8.72 + -3.36$$

Double Sign.

$$= -8.72 - 3.36$$

$$= -12.08$$

$$\begin{array}{r} 8.72 \\ + 3.36 \\ \hline 12.08 \end{array}$$

(sign will be -)

$$g) \frac{(9.3 - 16.2) \times (42.7 - 65.3)}{23.8 \times (47.2 - 73.6)}$$

$$= \frac{[(9.3 - 16.2) \times (42.7 - 65.3)]}{[23.8 \times (47.2 - 73.6)]}$$

$$= \frac{[-6.9 \times -22.6]}{[23.8 \times (47.2 - 73.6)]}$$

$$= \frac{+155.94}{[23.8 \times (47.2 - 73.6)]}$$

No Calculator!

Double Sign.

Brackets.

$$\begin{array}{r} 5.6 \\ - 7.0 \\ \hline \end{array}$$

1.4 (sign will be -)

Multiply

$$\begin{array}{r} 2.4 \\ \times 1.4 \\ \hline 96 \\ 240 \\ \hline \end{array}$$

3.36 (sign will be -)

Calculator!

Put Brackets on top & bottom.

Complete entire "top" 1st.

Complete entire "bottom" 2nd.

$$= \frac{+155.94}{[23.8 \times -26.4]}$$

$$= \frac{+155.94}{-628.32}$$

$$= -0.25 \quad (\text{Rounded to nearest tenth})$$

Assign: Page 60 #4-11

Worksheet Pg. 35 #13; #14 only.