

10-23-17

Aim: SWBAT multiply decimals with negatives.

HW: Pg. 267 # 3 - 22 (just the multiplication problems)

Quiz tomorrow (rounding, add, and subtract)

Do Now: Check hw with key

Pg. 262 # 2-16

②  $30.193 + 7.91$   
 $\begin{array}{r} 30.193 \\ + 7.91 \\ \hline 38.103 \end{array}$   
 = 38.103

③  $2.507 + 0.586$   
 $\begin{array}{r} 2.507 \\ + 0.586 \\ \hline 3.093 \end{array}$   
 = 3.093

④  $-6.08 + 2.661$   
 more neg.  $\leftarrow$  Diff. sign so subtract  
 $\begin{array}{r} 6.08 \\ - 2.661 \\ \hline 3.419 \end{array}$   
 = -3.419

⑤  $-0.37 + (-1.8)$   
 same signs so neg.  
 $\begin{array}{r} 0.37 \\ + 1.8 \\ \hline 2.17 \end{array}$   
 = -2.17

⑥  $6.8 + (-1.812)$   
 $\leftarrow$  more pos. so pos.  
 $\begin{array}{r} 6.800 \\ - 1.812 \\ \hline 4.988 \end{array}$   
 = 4.988

⑦  $-12.09 + 1.20$   
 more neg.  $\leftarrow$  so neg.  
 $\begin{array}{r} 12.09 \\ - 1.20 \\ \hline 10.89 \end{array}$   
 = -10.89

⑧  $3.28 + (-4.91)$   
 $\leftarrow$  more neg. so neg.  
 $\begin{array}{r} 4.91 \\ - 3.28 \\ \hline 1.63 \end{array}$   
 = -1.63

⑨  $1.46 + (-1.564)$   
 $\leftarrow$  more neg. so neg.  
 $\begin{array}{r} 1.564 \\ - 1.46 \\ \hline 0.104 \end{array}$   
 = -0.104

⑩  $1.57 - 9.28$   
 $\leftarrow$  more neg. so neg.  
 $\begin{array}{r} 9.28 \\ - 1.57 \\ \hline 7.71 \end{array}$   
 = -7.71

⑪  $68.79 - 9.18$   
 $\leftarrow$  more pos. so pos.  
 $\begin{array}{r} 68.79 \\ - 9.18 \\ \hline 59.61 \end{array}$   
 = 59.61

⑫  $15.7 - (-6.4)$   
 $\begin{array}{r} 15.7 \\ + 6.4 \\ \hline 22.1 \end{array}$   
 = 22.1

⑬  $-0.99 - 0.304$   
 same sign so neg.  
 $\begin{array}{r} 0.99 \\ + 0.304 \\ \hline 1.294 \end{array}$   
 = -1.294

⑭  $25.885 - 6.9$   
 $\leftarrow$  more pos. so pos.  
 $\begin{array}{r} 25.885 \\ - 6.9 \\ \hline 18.985 \end{array}$   
 = 18.985

⑮  $29.1 - (-3.05)$   
 $\begin{array}{r} 29.1 \\ + 3.05 \\ \hline 32.15 \end{array}$   
 = 32.15

⑯  $-4.22 - 0.807$   
 same sign so neg.  
 $\begin{array}{r} 4.22 \\ + 0.807 \\ \hline 5.027 \end{array}$   
 = -5.027

$\begin{array}{r} 4.3 \\ - 1.1 \\ \hline \end{array}$   
 $\boxed{-1.1 + 4.3} = +$

~~-5.4~~   ~~-3/2~~    $\boxed{3.2}$    5.4

### Multiplying Decimals

- Number with the most digits goes on top!
- Align last digits.
- Multiply.
- Total the number of decimal digits the factors have.
- Match the number of decimal digits in the answer with that total.

Find the product.



$(-7.39)(2.1) = -15.519$

$$\begin{array}{r} 7.39 \\ \times 2.1 \\ \hline 739 \\ + 14780 \\ \hline 15.519 \end{array}$$

$(5.07)(19.62) = 99.4734$

$$\begin{array}{r} 19.62 \\ \times 5.07 \\ \hline 13734 \\ 0000x \\ + 9810xx \\ \hline 99.4734 \end{array}$$

$(1.13)(0.04) = 0.0452$

$$\begin{array}{r} 1.13 \\ \times 0.04 \\ \hline 452 \\ 000x \\ + 000xx \\ \hline 0.0452 \end{array}$$

$(-0.85)(-8) = +6.8$

$$\begin{array}{r} 0.85 \\ \times 8 \\ \hline 6.80 \end{array}$$

Fraction  $\rightarrow$  Decimal

$$\frac{2}{5}$$

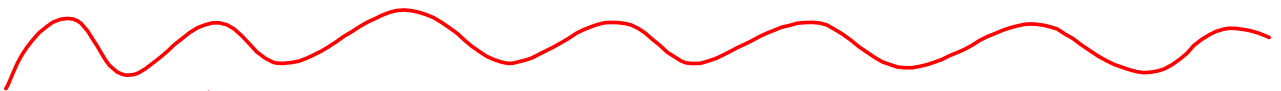
$$\begin{array}{r} 0.4 \\ 5 \overline{) 2.0} \\ \underline{- 20} \\ 0 \end{array}$$

Terminating  
Decimal

$$\frac{4}{8}$$

$$\begin{array}{r} 0.5 \\ 8 \overline{) 4.0} \\ \underline{- 40} \\ 0 \end{array}$$

Terminating  
Decimal



$$\frac{1}{3} \quad 0.\overline{3}$$

$$\begin{array}{r} 0.33 \text{ repeating} \\ 3 \overline{) 1.00} \\ \underline{- 9} \\ 10 \\ \underline{- 9} \\ 1 \end{array}$$