10-26-17

Aim: SWBAT evaluate expressions with rational numbers.

HW: Finish WS & Pg. 268 # 38 – 39

Test Tuesday

Do Now: Correct hw

Pg. 267 # 3-22

(3) $7.8 \cdot 2.6 = 20.28$

$$\begin{array}{r} {\scriptstyle 1\,4}\,7.8 \\ \times\ 2.6 \\ \hline 468 \\ +\,156 \\ \hline 20.28 \end{array}$$

(4) $3.75(-0.4) = -1.5$

$$\begin{array}{r} {\scriptstyle 3\,2}\,3.75 \\ \times\ 0.4 \\ \hline 1500 \\ +\,000 \\ \hline 1.500 \end{array}$$

drop extra zeroes

(5) $(-8.2)(0.7) = -5.74$

$$\begin{array}{r} {\scriptstyle 1}\,8.2 \\ \times\ 0.7 \\ \hline 574 \\ +\,00 \\ \hline 5.74 \end{array}$$

(6) $0.5 \div 1.25 = 0.4$

$$\begin{array}{r} 0.4 \\ 125\overline{)\,50.0} \\ -\,00\downarrow \\ \hline 500 \\ -\,500 \\ \hline 0 \end{array}$$

(7) $(25)(0.2) = 5$

$$\begin{array}{r} {\scriptstyle 1}\,25 \\ \times\ 0.2 \\ \hline 50 \\ +\,00 \\ \hline 05.0 \end{array}$$

(8) $(2.4)(0.3) = 0.72$

$$\begin{array}{r} {\scriptstyle 1}\,2.4 \\ \times\ 0.3 \\ \hline 72 \\ +\,00 \\ \hline 0.72 \end{array}$$

(9) $13.2 \div 1.1 = 12$

$$\begin{array}{r} 12. \\ 11\overline{)\,132.} \\ -\,11 \\ \hline 22 \\ -\,22 \\ \hline 0 \end{array}$$

(10) $(13.65)(1.1) = 15.015$

$$\begin{array}{r} 13.65 \\ \times\ \ 1.1 \\ \hline 1365 \\ +\,1365 \\ \hline 15.015 \end{array}$$

(11) $4.8 \div 1.2 = 4$

$1.2\overline{)4.8}$ → $12\overline{)48.}$ → $4.$, -48, 0

(12) $4.9 \div 0.07 = 70$

$0.07\overline{)4.90}$ → $7\overline{)490.}$ → 70, $-49\downarrow$, 00, -00, 0

(13) $-8 \div (-3.2) = 2.5$

$3.2\overline{)8.}$ → $32\overline{)80.0}$ → 2.5, $-64\downarrow$, 160, -160, 0

(14) $5 \div (-0.1) = -50$

$0.1\overline{)5.}$ → $1\overline{)50.}$ → $50.$, $-5\downarrow$, 00, -00, 0

(15) $(5.41)(0.35) = 1.8935$

$$\begin{array}{r} {\scriptstyle 2\ 1} \\ 5.41 \\ \times\ 0.35 \\ \hline 2705 \\ 1623 \\ +\ 000 \\ \hline 1.8935 \end{array}$$

(16) $4.844 \div 0.56 = 8.65$

$0.56\overline{)4.844}$ → $56\overline{)484.40}$ → 8.65, $-448\downarrow$, 364, $-336\downarrow$, 280, -280, 0

(17) $-0.57 \div 0.38 = -1.5$

$0.38\overline{)0.57}$ → $38\overline{)57.0}$ → 1.5, $-38\downarrow$, 190, -190, 0

(18) $(-2.687)(-9) = 24.183$

$$\begin{array}{r} {\scriptstyle 6\ 7\ 6} \\ 2.687 \\ \times\ \ \ 9 \\ \hline 24.183 \end{array}$$

(19) $-37.41 \div 4.3 = -8.7$

$4.3\overline{)37.41}$ → $43\overline{)374.1}$

8.7

$-344\downarrow$

301

-301

0

(20) $(0.098)(-0.55) = -0.0539$

0.098

$\times\ 0.55$

0490

Drop extra zero

0490

$+\ 000$

$.05390$

(21) $(6.025)(48.2) = 290.405$

6.025

$\times\ 48.2$

12050

48200

$+24100$

290.4050

Drop extra zero

(22) $1.11 \div 0.925 = 1.2$

$0.925\overline{)1.110}$ → $925\overline{)1110.0}$

1.2

$-925\downarrow$

1850

-1850

0

Name _____ Date _____

Order of Operations with Rationals Period ____

Evaluate if a = 6.28 and b = -0.35. Write your answer as a decimal.

$\frac{5}{2} \to 2\frac{1}{2} \to 2.5$

1. $a - \frac{5}{2}$ $6.28 - 2.5$ 3.78	2. $\frac{3}{8} + a$ $0.375 + 6.28$ 6.655	3. $b - \frac{3}{4}$	4. $\frac{9}{2} + b$

Evaluate.

5. $(-3.4 + 5.4)^2 - 1.3$ $2^2 - 1.3$ $4 - 1.3$ 2.7	6. $\frac{2}{3} - \left(-\frac{3}{5}\right) + 3^2$ $\frac{2}{3} + \frac{3}{5} + 9$ $\frac{10}{15} + \frac{9}{15} + 9$ $\frac{19}{15} + 9$ $\frac{14}{15} + 9$ $10\frac{4}{15}$	7. $2 \cdot \frac{2}{3} + \left(-1\frac{1}{4}\right)$ $\frac{4}{3} - 1\frac{1}{4}$ $\frac{4}{3} - \frac{5}{4}$ $\frac{16}{12} - \frac{15}{12}$ $\frac{1}{12}$
8. $-5\frac{2}{9} + 3.7 + 5\frac{2}{9}$ 3.7	9. $-24 - \left(\frac{-1}{2}\right) - 12.5$	10. $16\left(\frac{-3}{8}\right) + 16\left(\frac{1}{4}\right)$ $-6 + 4$ -2
11. $-5\frac{5}{7} + 8 - 3\frac{2}{7}$ $-8\frac{7}{7} + 8$ $-9 + 8$ -1	12. $\frac{16}{20} - (-1.8) - \frac{4}{5}$ $\frac{4}{5} + 1.8 - \frac{4}{5}$ 1.8	13. $3\frac{1}{6} + 20.3 - \left(-5\frac{5}{6}\right)$ $3\frac{1}{6} + 20.3 + 5\frac{5}{6}$ $9 + 20.3$ 29.3

Name _____ Date _____

Order of Operations with Rationals Period ____

14. $-2.2 \cdot (-2) \div \left(-\frac{1}{4}\right) \cdot 5$ $-2.2 \cdot (-2) \cdot (-4) \cdot 5$ $-2.2 \cdot 40$ -88 2.2 x 40 = 88 + 88 x = 88.0	15. $4.2 \cdot \left(-\frac{1}{3}\right) \div \frac{1}{6} \cdot (-10)$	16. $\frac{2}{5} \div \left(-1 + \frac{3}{5}\right) - 4^2$ $\frac{2}{5} \div \frac{-2}{5} - 16$ $-1 - 16$ -17

Evaluate if x = -5 and y = 6.

17. x^2 $(-5)^2$ 25 mul ( )	18. $-y + x$ $-6 + (-5)$ -11	19. $\frac{y+4}{2x} \rightarrow \frac{6+4}{2(-5)} \rightarrow \frac{10}{-10} \rightarrow -1$

Evaluate each expression if a = 3, b = -4, and c = -8.

20. $\frac{bc}{2} \rightarrow \frac{(-4)(-8)}{2} \rightarrow \frac{32}{2} \rightarrow 16$
21. $\frac{c^2}{a-b} \rightarrow \frac{(-8)^2}{3-(-4)} \rightarrow \frac{64}{7}$
22. $\frac{c+a}{-2a+b} \rightarrow \frac{-8+3}{(-2)(3)+(-4)} \rightarrow \frac{-5}{-6+(-4)} \rightarrow \frac{-5}{-10} \rightarrow \frac{1}{2}$