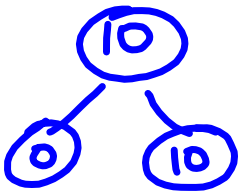
10-13-17

Aim: SWBAT continue to evaluate expressions.

HW: Test Tuesday

Do Now: Evaluate.

$$18 \div \left(\frac{-2}{3}\right) \cdot 14 \div (-7) \cdot (-3) \div \frac{1}{4}$$



$18 \div (\frac{-2}{3}) \cdot 14 \div (-7) \cdot (-3) \div \frac{1}{4}$

$18 \cdot \frac{-3}{2} \cdot 14 \cdot \frac{-1}{7} \cdot (-3) \cdot 4$

$5 \cdot 3 \cdot 2$

$1 + 5 + 3 + 4$

$-27 \cdot 14 \cdot \frac{-1}{7} \cdot (-3) \cdot 4$

$-27 \cdot -2 \cdot (-3) \cdot 4$

-648

Name _____ Date _____

Order of Operations with Rationals Period ____

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

1. $a - \frac{5}{2}$	2. $\frac{3}{8} + a$	3. $b - \frac{3}{4}$	4. $\frac{9}{2} + b$

Evaluate.

5. $(-3.4 + 5.4)^2 - 1.3$	6. $\frac{2}{3} - \left(\frac{3}{5}\right) + 3^2$ $\frac{2}{3} + \frac{3}{5} + 9$ $\frac{10}{15} + \frac{9}{15} + 9$ $\frac{19}{15} + 9$ $1\frac{4}{15} + 9$ $10\frac{4}{15}$	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. $\frac{16}{20} - (-1.8) - \frac{4}{5}$	13. $3\frac{1}{6} + 20.3 - \left(-5\frac{5}{6}\right)$

Name _____ Date _____

Order of Operations with Rationals Period ____

14. $-2.2 \cdot (-2) \div \left(-\frac{1}{4}\right) \cdot 5$	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. $\frac{c+a}{-2a+b} \rightarrow \frac{-8+3}{(-2)(3)+(-4)} \rightarrow \frac{-5}{-6+(-4)} \rightarrow \frac{-5}{-10} \rightarrow \frac{1}{2}$

1. Evaluate a^2 and $-a^2$ if $a = \frac{3}{4}$

$\left(\frac{3}{4}\right)^2$ $\quad -\left(\frac{3}{4}\right)^2$ $\quad -\left(\frac{3}{4}\cdot\frac{3}{4}\right) \rightarrow -\frac{9}{16}$

$\frac{3}{4}\cdot\frac{3}{4} = \frac{9}{16}$

2. Write the multiplicative inverse (reciprocal) for each.

① Fraction
② Flip & Keep the sign

$-2\frac{7}{8}$ $\quad -\frac{23}{8}$ $\quad -4\frac{3}{5}$ $\quad -\frac{23}{5}$ $\quad 3\frac{1}{6}$

$-\frac{8}{7}$ $\quad -\frac{8}{23}$ $\quad -\frac{5}{23}$

3. Write the additive inverse (opposite) for each. (change the sign)

$-\frac{3}{5}$ $\quad \frac{3}{5}$ $\quad \frac{2}{7}$ $\quad \frac{-2}{7}$ $\quad -6\frac{1}{9}$ $\quad 6\frac{1}{9}$