

1.1-1.5 Practice

Date _____ Period _____

Evaluate each expression.

$$1) \frac{(-10) + (-1) - (-5)}{(-2) - (-1)} =$$

6

$$\frac{-10 + (-1) + 5}{-2 + 1} = \frac{-6}{-1} = \boxed{6}$$

$$3) (-3) + 4 - \left(2 - \frac{8}{2}\right) =$$

3

$$\begin{aligned} -3 + 4 - (2 - 4) &= \\ -3 + 4 - (-2) &= \\ -3 + 4 + 2 &= \boxed{3} \end{aligned}$$

$$5) (6)((14 - (2)(2)) \div 5)$$

12

$$\begin{aligned} 6[14 - 4] \div 5 &= \\ 6[10 \div 5] &= \\ 6(2) &= \boxed{12} \end{aligned}$$

$$2) 6 - ((-3)^2 + (-6) + 6) =$$

-3

$$\begin{aligned} 6 - (9 - 6 + 6) &= \\ 6 - (9) &= \\ \boxed{1 - 3} &= \end{aligned}$$

$$4) (3)((-5 - 5)(-1)) - 3$$

27

$$\begin{aligned} 3[(-10)(-1)] - 3 &= \\ 3(10) - 3 &= \\ 27 - 3 &= \\ \boxed{9} &= \end{aligned}$$

$$6) \frac{9}{(-2)^2 + (-5 + 4)} =$$

3

$$\frac{9}{(4) + (-1)} = \frac{9}{3} = \boxed{3}$$

Evaluate each using the values given. Show the substitution step and use ()'s.

$$7) m^2p - m^2; \text{ use } m = 2, \text{ and } p = 4$$

12

$$\begin{aligned} (2)^2(4) - (2)^2 &= \\ 4 \cdot 4 - 4 &= \\ 16 - 4 &= \\ \boxed{12} &= \end{aligned}$$

$$8) nm - (m)(m - 2); \text{ use } m = 2, \text{ and } n = 5$$

10

$$\begin{aligned} (5)(2) - (2)(2 - 2) &= \\ \boxed{10} &= \end{aligned}$$

$$9) ((c)(a + ab)) \div 6; \text{ use } a = 4, b = 2, \text{ and } c = 4$$

8

$$\begin{aligned} ((4)(4 + 4 \cdot 2)) \div 6 &= \\ 4(12) \div 6 &= \\ 48 \div 6 &= \\ \boxed{8} &= \end{aligned}$$

$$10) (p)((r + p)^2 \div 4); \text{ use } p = 3, \text{ and } r = 1$$

12

$$\begin{aligned} 3[(1 + 3)^2 \div 4] &= \\ 3[4^2 \div 4] &= \\ 3[16 \div 4] &= \\ 3(4) &= \boxed{12} \end{aligned}$$

WORKING WITH FRACTIONS: Evaluate each using the values given.

11) $(z - y)^2$; use $y = \frac{5}{4}$, and $z = \frac{6}{4} = \left(\frac{6}{4} - \frac{5}{4}\right)^2$

$$\left(\frac{1}{4}\right)^2 = \frac{1}{16}$$

12) $n - m + p$; use $m = \frac{3}{2}$, and $n = \frac{5}{3}$ and $p = \frac{1}{6} =$

$$\frac{5}{3} - \frac{3}{2} + \frac{1}{6} =$$

$$\frac{10}{6} - \frac{9}{6} + \frac{1}{6} =$$

$$\frac{1}{6} = \frac{1}{6}$$

13) $\frac{p}{q}$; use $p = 5$, and $q = \frac{20}{3}$

$$5 \div (20/3) = 5 \cdot \frac{3}{20} = 15/20 = (3/4)$$

14) z^3 ; use $z = \frac{5}{3}$

$$\frac{125}{27}$$

$$\left(\frac{5}{3}\right)^3 =$$

$$\frac{5}{3} \cdot \frac{5}{3} \cdot \frac{5}{3} =$$

$$\frac{125}{27}$$

Write each as an expression, EQUATION, OR INEQUALITY.

15) m decreased by 4 is equal to 42

$$m - 4 = 42$$

16) the quotient of n and 5 is less than 47

$$\frac{n}{5} < 47$$

17) half of n is 24

$$\frac{n}{2} = 24$$

18) 9 more than n is equal to 29

$$n + 9 = 29$$

19) n squared is greater than 39

$$n^2 > 39$$

20) x cubed is less than or equal to 5

$$x^3 \leq 5$$

21) the product of n and 11 is 34

$$n \cdot 11 = 34$$

22) r cubed is equal to 37

$$r^3 = 37$$

23) twice x is greater than or equal to 10

$$2x \geq 10$$

24) 16 less than x is 40

$$x - 16 = 40$$