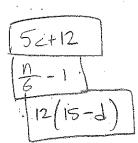
Form G

Chapter 1 Exam Review

Do you know HOW?

Write an algebraic expression for each phrase.

- 1. 12 more than 5 times c
- 2. 1 less than the quotient of a number n and 6
- 3. 12 times the quantity 15 minus a number d



Simplify each expression.

4.
$$22 + (3^2 - 4^2)$$
 $22 + (9 - 16)$
 $22 + (-7)$
 15

8. $-10 - (-2) \cdot (-4^3)$
 $-10 + 2 \cdot (-64)$
 $+10 + -128$

$$5. \pm \sqrt{169}$$

$$\pm 13$$

$$9. \left(-\frac{3}{4}\right)^{3}$$

$$-\frac{27}{64}$$

6.
$$(3^3 - 19)^2$$
 $(27 - 19)^2$
 64
 $10: 5^2 \div 2$
 25
 2

$$7. \frac{3}{4} + \frac{2}{5}$$

$$\frac{15}{20} + \frac{8}{20} = \frac{23}{20}$$

$$11. \frac{3}{8} \cdot \frac{5}{7} \cdot \frac{6}{15}$$

Evaluate each expression for the given values of the variables.

12.
$$5x + 2y^2 - y^3$$
; $x = 2$ and $y = 4$
 $5(2) + 2(4)^2 - (4)^3$
 $+ 6 + 2(16) - 64$ -22

13.
$$u+3v^2-2u^3$$
; $u=-1$ and $v=-3$
 $-1+3(-3)^2-2(-1)^3$
 $-1+3(-1)^2-2(-1)$

16. Name the subset(s) of the real numbers to which each number belongs.

	,
1	RATIONAL
2	A LOCAL DESCRIPTION OF THE PROPERTY OF THE PRO

17 Estimate VI18 to the tenths place.

18. Which property is illustrated by -8+0=-87

19. Are the following expressions equivalent? Explain.

 $\frac{28mn}{7n}$ and 4m



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Form G

Do this

20. Is the ordered pair (-8, -7) a solution to the equation 3x + 10 = 2y?

Show your work.

$$3(-8)+10=2(-7)$$

$$-24+10=-14$$

21. Is the ordered pair (5, 0) a solution to the equation 4x + 20 = 12y?

Show your work.

22. If a negative number has an exponent, can it ever be negative when it is simplified? Explain.

23. Is division commutative? Provide an example to justify your answer.

Simplify each expression.

24.
$$3(2x+4)-9$$

 $6 \times + 12-9$

25.
$$15x-4(-3-2x)$$

 $15x+12+8x$
 $23x+12$

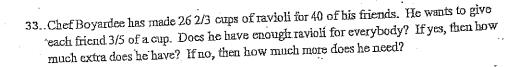
26.
$$-\frac{1}{4}(-4-2p)$$

Do you UNDERSTAND?

27. Open-Ended Write an equation that can be solved correctly in two different ways. Demonstrate both methods.

\ Reasoning Find the value of $22 \div 2 + 9 - 4^2 + 18$. Then change one operation sign and add one set of grouping symbols so that the value of the expression is 36.

- 29. Writing Describe the difference between the set of whole numbers and the set of MINE#'S natural numbers. INCLUDE ZERO
- 30. Writing Describe the process for finding the sum of two numbers with the same sign and the sum of two numbers with different signs.
- 31. What is the difference between an expression and an equation?
- 32. Create 2 examples of equations that use both division and subtraction and have a solution of-L.



$$5\frac{1}{3} = \frac{16}{3}$$
 Resimant = $\frac{3}{16}$

36. What is the constant term in the expression
$$5x^2+4x+8$$

37. Write the word phrase for the equation
$$3x + 8 = 16 \div x$$

eight more than three times a number X

is equal to the quotient of sixteen and a number X

39. Prove that .23 is a Rational number.

40. 2 DVD's cost Joe \$18.3DVD's costs \$27 dollars. 4 DVD's cost \$36.5 DVD's cost \$45.

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