Accelerated Math Study Guide
Test on chapters 1 and 2

This is a "no calculator" test.
It will be part multiple choice (no work needs to be shown) and part short answer (work must be shown for full credit).

<u>Test covers sections</u>:

- **(1.2) Words and Expressions**
- **(1.3) Variables and Expressions (includes ones with exponents that are not in that section)**
- **(1.4) Properties of Numbers (includes distributive property that is not in that book section)**
- **(1.7) Words, Equations, Tables, and Graphs**
- **(2.1) Integers and Absolute Value**
- **(2.2) Adding Integers**
- **(2.3) Subtracting Integers**
- **(2.4) Multiplying Integers**
- **(2.5) Dividing Integers**
- **(2.2-2.5) Using Order of Operations Agreement with Integers**
- **(2.6) Graphing in Four Quadrants**

<u>How to study for the test</u>:

***Review Notes and Quizzes from these sections.**
***Look over problems we have done in these chapters. They should be in the assignment section of your binder. Redo problems that you got wrong the first time you did the assignment to make sure you now understand them.**
***Do the Practice Problems for the Test (attached)**
These problems are representative of problems you will see on the test.
***Optional Practice**
p. 42 - 44 # 5-31 odd, 40 (answers are in the back of your book)
p. 88-90 #1-77 odd (answers are in the back of your book)

Know and be able to use these vocabulary words:

absolute value
additive inverse
algebraic expression
associative property
commutative property
coordinate plane
counterexample
defining a variable
difference
distributive property
equation
evaluate
exponent
identity property of addition
identity property of multiplication
inequality
integer
mean
median
model of operations (counters & # line)
multiplication property of zero
natural numbers
numerical expression
opposites
order of operations
ordered pair
origin
perfect square
product
quadrants
quotient
simplify
sum
variable
whole numbers
x-axis
x-coordinate
y-axis
y-coordinate
zero pair

Accelerated Math Practice Problems Name_____
(Chapters 1 & 2) Algebraic Reasoning and Integers Block _____ Date_____

Sample Test Questions (* means steps must be shown)

1) Which properties were used to do each of the following steps?
Choose from: arithmetic distributive associative commutative identity

$(-3a)4 = [(a)(-3)]4$ _____

$= a[(-3)(4)]$ _____

$= a(-12)$ _____

$= (-12)a$ _____

$= -12a$ _____

2) Which properties were used to do each of the following steps?
Choose from: arithmetic distributive associative commutative identity

$(7+ 4) + (x + 9) = 11 + (x + 9)$ _____

$= 11 + (9 + x)$ _____

$= (11 + 9) + x$ _____

$= 20 + x$ _____

$= x + 20$ _____

***3) Evaluate:** $-5(-4 + 7)^2$

***4) Evaluate:** $-5 + 8(-7 - 3 + 1)$

***5) Find the sum of the quantity negative two cubed and five squared.**

***6) Evaluate if a = -3, b = 5 and c = 10**
$ab - c$

*7) Evaluate if a = -5, b = 3 and c = -8

$ab^2 - c$

8) Name the property shown.

A) ab = ba _____

B) 5 (8 - 10) = 5(8) - 5(10) _____

C) -8(1) = -8 _____

D) 8 + 0 = 8 _____

E) [(12)(25)](4) = 12[(25)(4)] _____

F) (6 + 4) + 2 = (4 + 6) + 2 _____

*9) Simplify:

A) -9(7y) = _____

B) -2 + x + 8 = _____

C) 4a(-5)(3b) = _____

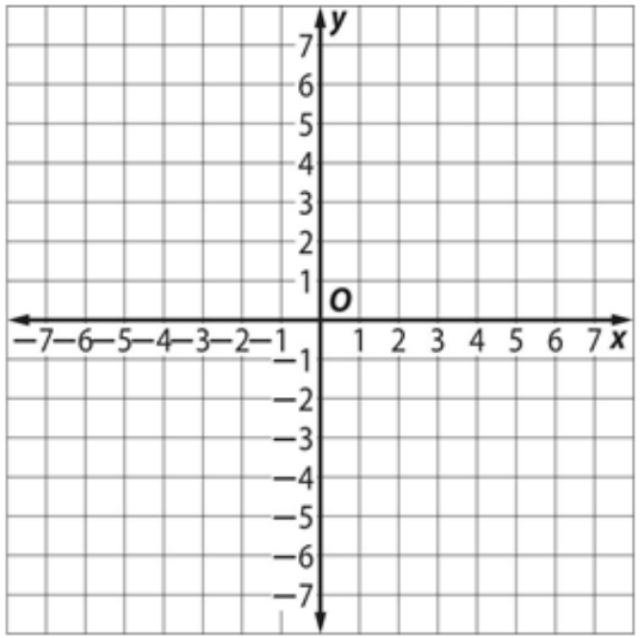
*10) The equation of a relation is y = x - 2

Write this relation in

A) Words:

B) Table:
(at least 5 ordered pairs)

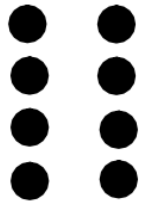
x	y



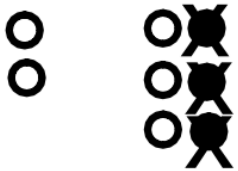
C) Graph:

Use the models: + 1 = ○ and -1 = ● to write the number sentences that go with each of the following models.

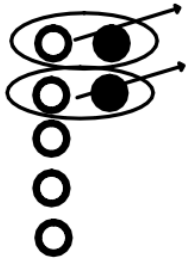
11) Give two different number sentences.



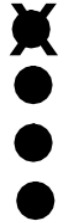
12) Give one number sentence.



13) Give one number sentence.

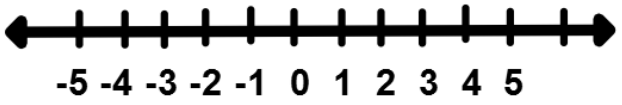


14) Give one number sentence.

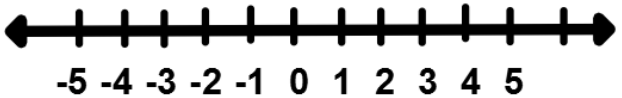


Model the following problems on the number line and complete the number sentence.

15) 2(-3) =



16) 2 + -3 =



Sometimes, Always, or Never ?? Explain your reasoning.

*17) A positive number subtract a negative number is a positive number.

18) A point that lies on the y-axis will have a y-coordinate of zero.

*19 Place the following in order from smallest to largest. Use the letters in your final answer.

A -8 + 6

B $-|-4|$

C (-2)(-1)(-5)

D $(-2)^4$

E $|-4-3|+|2|$

*20) Evaluate:

$6(-3)^2 - (-5) - 2$

*21) Evaluate if

a = - 4 b = 3 c = - 5

$abc - ab^2$

22) Name an ordered pair with the following conditions:

A) located in Quadrant I

B) called the origin

C) y-coordinate is negative and x-coordinate is positive

*23) Explain the meaning of the absolute value of a number. Give examples.

*24) Evaluate:

$$\frac{(-1+-1)^3}{-2\div 1}+\frac{10^2}{5}$$

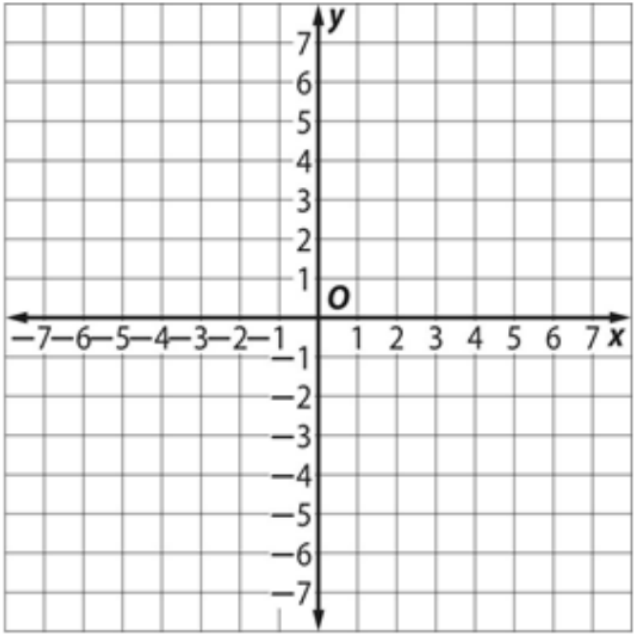
*25) The equation of a relation is y = 2x - 3
Write this relation in

A) Words:

B) Table:
(at least 5 ordered pairs)

x	y

C) Graph:



*26) The equation of a relation is x + y = -5
Write this relation in

A) Words:

B) Table:
(at least 5 ordered pairs)

x	y

C) Graph: