Name: **ANSWER KEY**   Block: _____   Date: _____

INTEGERS: Study Guide

Test on: __Wed. Oct. 11th__

Competency 2 – Learning Target #1: I can add integers.	3 – MS	2- PMS	1 – DNM

DIRECTIONS: Add the integers. Show your work!

1.) $-36 + (-12) =$

$\begin{array}{r} 36 \\ +12 \\ \hline 48 \end{array}$ (**-48**)

2.) $-24 + 12 =$

(**-12**)

$\begin{array}{r} 24 \\ -12 \\ \hline 12 \end{array}$

3.) $-42 + (-12) =$

$\begin{array}{r} 42 \\ +12 \\ \hline 54 \end{array}$ (**-54**)

4.) $42 + (-35) =$

$\begin{array}{r} 3\cancel{4}2 \\ -35 \\ \hline 7 \end{array}$ (**7**)

5.) $32 + (-42) =$

$\begin{array}{r} 42 \\ -32 \\ \hline 10 \end{array}$ (**-10**)

6.) $72 + (-23) =$

$\begin{array}{r} 6\cancel{7}2 \\ -23 \\ \hline 49 \end{array}$ (**49**)

Competency 2 – Learning Target #2: I can subtract integers.	3 – MS	2- PMS	1 – DNM

DIRECTIONS: Subtract the integers. Show your work!

7.) $-13 - (-44) =$

$-13 + 44 =$

$\begin{array}{r} 44 \\ -13 \\ \hline 31 \end{array}$ (**31**)

8.) $(-11) - 39 =$

$-11 + -39$

$\begin{array}{r} 11 \\ +39 \\ \hline 50 \end{array}$

(**-50**)

9.) $52 - (-12) =$

$52 + 12 =$ (**64**)

10.) $29 - 43 =$

$29 + (-43)$

$\begin{array}{r} 3\cancel{4}\cancel{3} \\ -29 \\ \hline 14 \end{array}$ (**-14**)

11.) $(-843) - 342 =$

$-843 + (-342)$

$\begin{array}{r} 843 \\ +342 \\ \hline 1185 \end{array}$ (**-1,185**)

12.) $45 - 94 =$

$45 + (-94)$

(**-49**)

$\begin{array}{r} \cancel{9}4 \\ -45 \\ \hline 49 \end{array}$
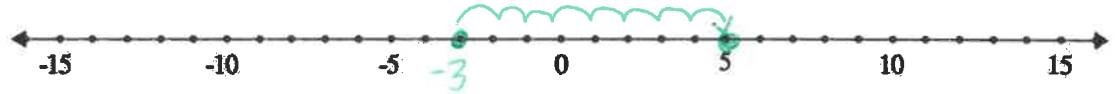
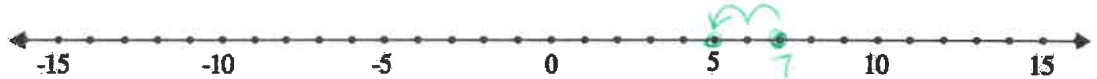|	3 – MS	2– PMS	1 – DNM
Competency 2 – Learning Target #3: I can represent addition of integers on a number line.			

DIRECTIONS: Model the following addition problems on the number line.

13.) –3 + (8) = __5__

-15   -10   -5   -3   0   5   10   15

14.) 7 + (–2) = __5__

-15   -10   -5   0   5   7   10   15

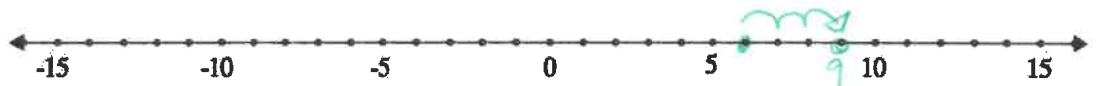|	3 – MS	2– PMS	1 – DNM
Competency 2 – Learning Target #4: I can represent subtraction of integers on a number line.			

DIRECTIONS: Model the following subtraction problems on the number line.

15.) –6 – (3) = __–9__

-6 + –3

-15   -10 9   -5   0   5   10   15

16.) 6 – (–3) = __9__

6 + 3

-15   -10   -5   0   5   9   10   15

	3 – MS	2- PMS	1 – DNM
Competency 2 – Learning Target #5: I and represent the distance between two integers on a number line as an absolute value.			

DIRECTIONS: Find the absolute value.

17.) $|-33| =$

33

18.) $|2 + -7| =$

$2 + -7 = -5$

$|-5| = 5$

19.) $|-24| + |13| =$

$24 + 13 = 37$

20.) What is the distance between -12 and 33 on the number line?

12
$+33$
$\overline{45}$

45

	3 – MS	2- PMS	1 – DNM
Competency 2 – Learning Target #6: I can multiply integers.			

DIRECTIONS: Multiply the integers. Show your work!

21.) $-4(12) =$

-48

22.) $-10(-6) =$

60

23.) $20(-4) =$

-80

24.) $2(12) =$

24

25.) $-8(3) =$

-24

26.) $-3(-4) =$

12

DIRECTIONS: Evaluate each expression if a = -6, b = -4, c = 3

27.) $-5c =$

$-5(3) = 15$

-15

28.) $3b =$

$3(-4)$

-12

29.) $5a =$

$5(-6) =$

-30

	3 - MS	2- PMS	1 - DNM
Competency 2 - Learning Target #7: I can divide integers.			

DIRECTIONS: Divide the integers. Show your work!

30.) $-18 \div 2 =$

$\boxed{-9}$

31.) $\frac{49}{-7} =$

$\boxed{-7}$

32.) $-30 \div (-5) =$

$\boxed{6}$

DIRECTIONS: Evaluate each expression if x = 8 and y = -5

33.) $55 \div y =$

$55 \div -5$

$\boxed{-11}$

34.) $-40 \div x =$

$-40 \div 8$

$\boxed{-5}$

35.) $-45 \div y =$

$-45 \div -5$

$\boxed{9}$

	3 - MS	2- PMS	1 - DNM
Competency 2 - Learning Target #8: I can compare and order integers			

DIRECTIONS: Put the following integers in order from smallest to largest.

36.) 5, -34, 12, -4, 11, -3

$-34, -4, -3, 5, 11, 12$

37.) -51, 3, 2, -1, 5, -32

$-51, -32, -1, 2, 3, 5$

	3 - MS	2- PMS	1 - DNM

Competency 2 - Learning Target #9: I can solve real-world and mathematical problems involving integers using one or more of the four basic operations.			

DIRECTIONS: Solve the real-world problems using integer operations.

38.) Suppose the temperature is -6°F. What will the temperature be if it rises 51°F?

$$4\overset{5}{5}1$$
$$-6$$
$$45$$

$$-6 + 51 = \boxed{45°F}$$

39.) If a submarine dives from a depth of 532 meters to a depth of 1,210 meters, what is the change in its depth?

$$\begin{array}{r} 1\overset{11}{2}\overset{10}{1}\overset{}{0} \\ - \ 532 \\ \hline 678 \end{array}$$

$$\boxed{678 \text{ meters}}$$

40.) A squirrel climbed 38 inches up a tree, slipped back 15 inches, and then climbed up 45 inches more. How far up the tree has the squirrel made it?

$$38 - 15 + 45 =$$
$$23 + 45 = \boxed{68 \text{ inches}}$$

41.) A skydiver falls at approximately 12 meters per second. How many meters will he fall in 25 seconds?

$$\begin{array}{r} 2\overset{1}{5} \\ \times \ 12 \\ \hline 150 \\ 250 \\ \hline \boxed{300 \text{ meters}} \end{array}$$