7th Grade Math – Mr. Miller *REVIEW* UNIT 1
Whole Numbers & Integers

What will each of the following integer addition and subtraction problems equal? You may NOT use a calculator, and be sure to show all work to support your answers!

[1] 74 + (-45)

[2] 23 – (-66)

[3] (-24) – (-41)

[4] (-112) + (-36)

What will each of the following integer multiplication and division problems equal? You may NOT use a calculator, and be sure to show all work to support your answers!

[5] 16 • (-11)

[6] (-96) ÷ (-6)

[7] (-42) • (-5)

[8] 72 ÷ (-6)

*The "plus-minus rating" of a hockey player equals the number of times that he is on ice when **his team scores** minus the number of times that he is on the ice when **the other team scores**. Answer each of the following, showing all supporting work on the back of this paper.*

[9] If Sidney Crosby of the Penguins was on ice for 36 goals scored by the Penguins and 51 goals scored by their opponents, what would be his "plus-minus rating"? _____

[10] Alex Ovechkin of the Capitals has a "plus-minus rating" of +12. If he was on ice for 36 Capitals goals, how many times was he on ice for goals scored by the opposing team? _____

[11] The best player in the league has a "plus-minus rating" of +25, while the worst player in the league has a "plus-minus rating" of –32. How far are their ratings apart? _____

In each relation below, the same operation or set of operations are being done to the first number to obtain the second. Determine what operations are being done (and in what order) for each of the following, showing all work to support your answer in the space below each problem.

[12] $34 \rightarrow 69$ $-3 \rightarrow -5$ $0 \rightarrow 1$ $11 \rightarrow 23$ _____

[13] $-7 \rightarrow 15$ $7 \rightarrow 15$ $0 \rightarrow 8$ $28 \rightarrow 36$ _____

[14] $100 \rightarrow 19$ $45 \rightarrow 8$ $0 \rightarrow -1$ $10 \rightarrow 1$ _____

Answer the following, which are similar in structure to problems on state and federal assessments.

[15] Arrange the problems shown at right in order according to the ABSOLUTE VALUE of their answers, from lowest to highest

(-12) • (-4)
(-12) + (-4)
(-12) – (-4)
(-4) – (-12)
(-12) ÷ (-4)

_____ _____ _____ _____ _____

Lowest Highest

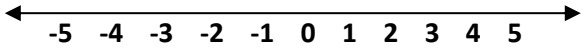
[16] Fill in the blanks below to create a numerical sequence that has a **coherent pattern** and DOES NOT have the same first differences throughout. Then show why the pattern you created would result in the numbers you entered into these blanks.

			24			**36**			

Use the data set given at right to help you answer each of the following.

5	**-2**	**-4**	**5**
0	**-1**	**-1**	**-1**
2	**1**	**-1**	**0**
3	**2**	**-2**	**-5**
-4	**-2**	**-1**	**-2**

[17] In the space below, construct a **line plot** for this data set.



[18] Use the line plot you constructed to determine the **median** of this set. _____

[19] Use the line plot you constructed to determine the **mode** of this set. _____

[20] Use the line plot you constructed to determine the **range** of this set. _____

Apply prior knowledge and concepts from Unit 1 to help you solve each of the following word problems.

[21] The Summer Olympic Games are held every 4 years, the All-Britain Rugby Cup is held every 5 years, and the French Open of Ping-Pong is held every 6 years. All three were held together in 1948, after the Second World War. What was the next year in which they were held together?

[22] Casey's bank statement had one of the numbers covered by an ink blot. If the opening and closing balance are correct, then what would be the amount of the deposit he made into this account on September 15?

OPENING BALANCE		**$34**
Sep. 7	**Deposit**	**+ $14**
Sep. 9	**Withdrawal**	**– $22**
Sep. 11	**Withdrawal**	**– $ 7**
Sep. 15	**Deposit**	[redacted]
Sep. 22	**Withdrawal**	**– $24**
CLOSING BALANCE		**$112**