Name: _____ Date: _____ Period: _____

Math 8 Unit 2 Practice Test ~ Integers

Teacher Assessment:

Fully Meeting Expectations	Meeting Expectations	Not Yet Meeting Expectations
4	**3** **2**	**1**
• Student has demonstrated a thorough understanding of the mathematical concepts and how they relate to procedures. • All the work has been logically shown to provide accurate solutions with only minor errors in computations NOT procedures or processes when necessary. • It is clear that students are proficient in the language used in these units.	• Student has demonstrated a partial understanding of the mathematical concepts and how they relate to procedures or processes. • The work appears to follow a logical sequence, but there are some errors. • Some work is shown to demonstrate understanding of the procedures, but is not complete. • Work may appear to be rushed or partially understood.	• Student has not successfully demonstrated their understanding of the mathematical concepts and how they are related to procedures. • The work shown is incomplete, and no logical process has been followed. • Computation involves major errors, and or computation shows a weak understanding of concepts learned. • An inappropriate method has been used to solve the question.

Question	Learning Outcome	Assessment	
1		4 3 2 1	
2		4 3 2 1	
3		4 3 2 1	
4	A7: demonstrate an understanding of multiplication and division of integers, concretely, pictorially, and symbolically	4 3 2 1	4 3 2 1
5		4 3 2 1	
6		4 3 2 1	
7		4 3 2 1	
8		4 3 2 1	

Overall Letter Grade: A   A-   B+   B   B-   C+   C   C-   I

_____

Student Assessment: I feel _____with my effort in this unit because _____

_____

_____

Put at check in one of the boxes below that indicates how you feel about the concepts learned.
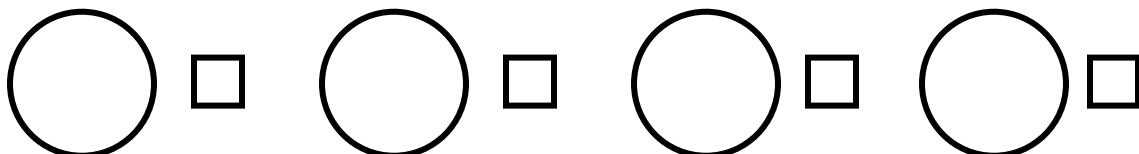
1. **Model** each of the following expressions using pictorial representations and **explain** the process.

    a) (+4) x (+5)

    b) (+3) x (-6)

    c) (-2) x (+7)

    d) (-1) x (-8)

2. Generalize a **rule** for determining the **sign** of the **product and quotient** of integers.

3. Find the product or quotient for each of the following expressions.
   a) (+20) x (+4) =

   b) (+13) ÷ (-1) =

   c) (-144) ÷ (+12) =

   d) (-9) x 0 =

4. Use the integers +4, -8, +7, +10, and -9. Which two integers have the **least product**?

5. Evaluate using Order of Operations. **Please show all work and describe step by step what you did in order to solve the problem.**
   a) 15 + 5 x 4 − 11 =

   b) $\dfrac{-28}{(-5)(-6) - 2} =$

6. Add brackets to make this statement true.

$$8 + 5 \text{ x } (-6) − 4 = -42$$

For the next two questions, please identify the operation required to solve the problem, and then show and explain all work and answers.

7. A deep-sea diver must descend and ascend in short steps to equalize pressure in his body. Suppose a diver started at 27 m below the water surface and rose in 5 steps of 5 m each. Use integers to describe his new position in relation to the water surface.

8. One day at 3 pm, the temperature was -6°C in a city in Manitoba. At 10 pm, the temperature was -20°C. Use integers to determine what the average change in temperature per hour was?