

Name: \_\_\_\_\_

Date: \_\_\_\_\_ Block: \_\_\_\_\_

Algebra 1- Week 4 Homework

Monday-

|  |                               |
|--|-------------------------------|
| <b>1. The problems below look very similar, but each has a different answer. Solve each below, then draw a visual model or a number line that will justify your response.</b>                                |                               |
| <b>a) <math>-4 + 9</math></b>  | <b>b) <math>4 + 9</math></b>  |
| <b>c) <math>4 - 9</math></b>   | <b>d) <math>-4 - 9</math></b> |
| <b>2. Vernon solved the problem, <math>-50 + 75</math>, and got <math>-25</math> as his response. Is his response correct? If not, explain what you would say to him to help him understand his mistake.</b> |                               |
| _____<br>_____<br>_____  |                               |

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**Tuesday-**

1. When you multiply or divide integers with different signs the resulting answer will always be \_\_\_\_\_.
2. When you multiply or divide integers with the same signs the resulting answer will always be \_\_\_\_\_.
3. Are the statements made in #1 and #2 also true for integer addition and subtraction? Why or why not? Justify your response below with an example.
4. If I multiply four negative integers together the product will be \_\_\_\_\_. If I multiply three negative integers together the product will be \_\_\_\_\_. Justify your response below.

**Wednesday-**

1. Evaluate the expression when  $a = -5$   
 $a^2 + 4a + 12$
2. Evaluate the expression when  $a = 10$  and  $b = 6$   
 $(a-b)^3 - a + 2b$
3.  $(-4) \cdot (9/10) \cdot (5) \cdot (-3) =$
4.  $-\sqrt{121} + \sqrt{49} + \sqrt{169}$

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**Thursday-**

- Allen is on the football team this year but he has poor time management skills. His mother told him that he is off the team if earns anything less than a C- in school. On his first math quiz he earned a 90, then he earned an 86 and an 82 on his next two quizzes. If his quiz grades continue at this rate, what will his quiz grade be after the 8<sup>th</sup> quiz? Will he still be on the team?

$$a_n =$$

- A culture of bacteria doubles every 2 hours. If there are 500 bacteria at the beginning, how many bacteria will there be after 24 hours?

$$a_n =$$

- The sum of the interior angles of a triangle is  $180^\circ$ , of a quadrilateral is  $360^\circ$  and of a pentagon is  $540^\circ$ . Assuming this pattern continues, find the sum of the interior angles of a dodecagon (12 sides)

$$a_n =$$

**Friday-** Test Review! No homework!