AN Investigation 2 Review

Name: _____ Date: _____ Period: _____

Learning Targets:
I can solve **addition** problems involving rational numbers. MAS ADV MTS APP BEG
I can solve **subtraction** problems involving rational numbers. MAS ADV MTS APP BEG

Predict **(without solving)** whether the following result will be positive, negative or zero. **You must explain your answer!**

1) $-1668 + 292$ negative

2) $-8\frac{1}{3} + 8\frac{1}{3}$ zero

3) $393 - {}^{-}499$ positive

4) $-89 - 15$ negative

Addition and Subtraction of Rational Numbers

5) $-2 + -3 =$ -5

6) $-5 + -5 =$ -10

7) $25 + -15 =$ 10

8) $10 - 8 =$ 2

9) $-6 - (-7) =$ 1
$-6 + 7$

10) $20 - (-12) =$ 32
$20 + 12$

11) $8 - 7 + 4 =$ 5

12) $-15 + -11 =$ -26

13) $-21 + 40 =$ 19

14) $2 - 10 =$ -8
$2 + -10$

15) $-2 - (-10) =$ 8
$-2 + 10$

16) $-22 - 15 =$ -37
$-22 + -15$

17) $\frac{3}{4} + \frac{7}{8} = \frac{13}{8} = 1\frac{5}{8}$

18) $-5.5 + -1.5 =$ -7

19) $-2\frac{1}{2} + \frac{1}{8} = -\frac{19}{8} = -2\frac{3}{8}$

20) $2.5 - 4.5 =$ -2
$2.5 + -4.5$

21) $-2\frac{1}{2} - (-\frac{1}{4}) = -\frac{9}{4} = -2\frac{1}{4}$
$-2\frac{1}{2} + \frac{1}{4}$

22) $-\frac{2}{3} - \frac{1}{4} = \frac{-11}{12}$
$-\frac{2}{3} + -\frac{1}{4}$

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Answer the following question with *'true'* or *'false'* and *explain* your answer.
(You may use pictures, number lines and/or words)

23) The **sum** of a positive number and a negative number is always negative.

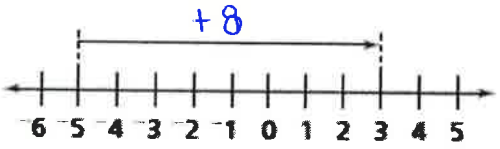
False A positive number plus a negative number could be positive or negative.

ex $8 + -5 = 3$ or ex $10 + -16 = -6$

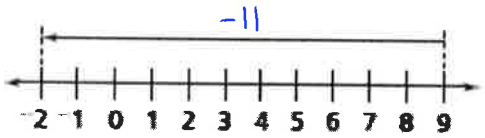
24) If a positive integer is subtracted from a negative integer, the **difference** is a negative integer.

True ⊖ − ⊕ when changed to an addition problem becomes ⊖ + ⊖ and based on our same sign addition algorithm the answer will always be negative.

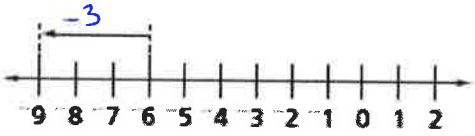
25) Write the addition sentence illustrated by each figure.



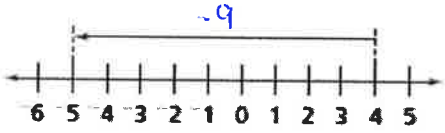
Number Sentence: $-5 + 8 = 3$



Number Sentence: $9 + -11 = -2$



Number Sentence: $-6 + -3 = -9$



Number Sentence: $4 + -9 = -5$