Name _____

Class _____

Problem 1 – Staying Positive

In this problem, you will explore the patterns you see when adding positive and negative numbers. In Exercises 1-6, determine if the answer will be positive. If not, decide what must be added to the problem to make it greater than zero. If needed, use the Number Line application to create vectors on a number line.

1. 6 + 7

Positive? Y or N

Add: _____

2. 4 + -6

Positive? Y or N

Add: _____

3. -5 + 7

Positive? Y or N

Add: _____

4. -3 + -2

Positive? Y or N

Add: _____

5. -8 + 8

Positive? Y or N

Add: _____

6. -9 + 12

Positive? Y or N

Add: _____

7. Explain how you decided what should be added to each problem that was not initially positive. _____

_____

8. What patterns did you notice in Exercises 1 – 6?

Problem	Result
Both Positive Addends	
One Positive, One Negative	
Both Negative Addends	

Problem 2 – Serious Subtraction

Determine if each will be positive or negative. What should be *subtracted* to make the problem equal zero. Again, use the Number Line app, if needed to identify patterns.

9. 6 – 4

Positive Negative

Subtract: _____

10. 4 – 6

Positive Negative

Subtract: _____

11. -4 – 6

Positive Negative

Subtract: _____

12. 4 – -6

Positive Negative

Subtract: _____

13. -4 – -6

Positive Negative

Subtract: _____

14. 6 – -4

Positive Negative

Subtract: _____

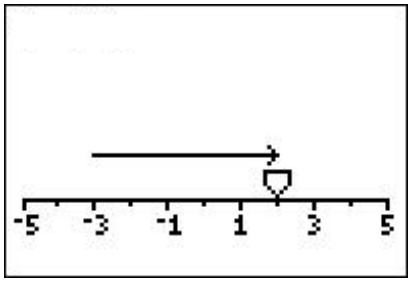
15. What happens when you subtract a negative number? _____

_____

Problem 3 – Opposite Number Sentences

Write one addition number sentence and one subtraction number sentence that represent each vector below.

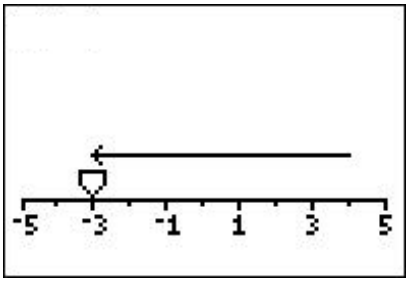
16.



Addition: _____

Subtraction: _____

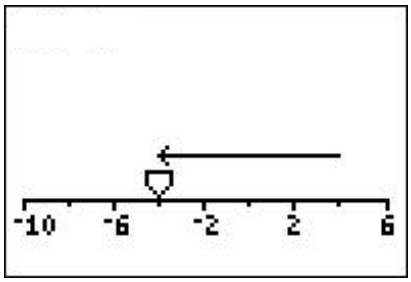
17.



Addition: _____

Subtraction: _____

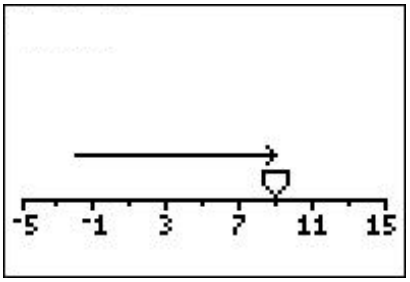
18.



Addition: _____

Subtraction: _____

19.



Addition: _____

Subtraction: _____

20. Write rules for other students to follow when adding and subtracting integers.

Add two positive integers: _____

Subtract two positive integers: _____

Add two negative integers: _____

Subtract two negative integers: _____

Add one positive and one negative integer: _____

Subtract one positive and one negative integer: _____