

Algebra I  
Using Integers

Name \_\_\_\_\_

DO ALL OF THE FOLLOWING QUESTIONS WITHOUT A CALCULATOR!!  
DRAW A NUMBER LINE IF NECESSARY!

1. List four numbers that are NOT integers. \_\_\_\_\_
2. Write a pattern of at least 5 numbers that are all integers. Describe your pattern in words.

Translate each verbal expression into symbols, and then simplify.

3. the sum of negative four and negative six
4. the difference of five and eight
5. three times the sum of two and negative five
6. the quotient of thirty-two and negative eight

Simplify, and draw a number line if necessary.

7.  $-6 + 5 =$  \_\_\_\_\_

8.  $8 - 12 =$  \_\_\_\_\_

9.  $-3 + 3 =$  \_\_\_\_\_

10.  $(-3)(-5)(2) =$  \_\_\_\_\_

11.  $-14 + 6 =$  \_\_\_\_\_

12.  $-9 - 9 =$  \_\_\_\_\_

13.  $\frac{-50}{-10} =$  \_\_\_\_\_

14.  $\frac{-36}{4} =$  \_\_\_\_\_

15.  $6 - (-3) =$  \_\_\_\_\_

16.  $2 - 11 =$  \_\_\_\_\_

17.  $-5 + -2 =$  \_\_\_\_\_

18.  $(6)(1)(-3) =$  \_\_\_\_\_

19.  $10 - (-6) =$  \_\_\_\_\_

20.  $-4 - 2 =$  \_\_\_\_\_

21.  $(-2)(-6)(-3)(0) =$  \_\_\_\_\_

22. On a really weird day in January, the temperature started out at  $12^{\circ}\text{F}$ . The temperature dropped ten degrees by 9 a.m. Then by noon, it had risen seven degrees. Then by 2 p.m., it had dropped twelve degrees. If it went up three more degrees in three hours, what was the temperature at 5 p.m.?

23. Josh was riding the elevator in the Empire State Building. He went up 4 floors, down 6 floors, up 2 floors, down 15 floors, and up 3 floors. When he got out of the elevator, he was on the 25<sup>th</sup> floor. What floor did he start on?

Evaluate each expression if  $m = 2$ ,  $a = -6$ ,  $t = -4$ ,  $h = 3$ .

24.  $m + a + h =$  \_\_\_\_\_

25.  $h - \frac{a}{m} =$  \_\_\_\_\_

26.  $\frac{at}{m} =$  \_\_\_\_\_

27.  $m - a - t - h =$  \_\_\_\_\_

28.  $|a - h| =$  \_\_\_\_\_

29.  $|hm| =$  \_\_\_\_\_