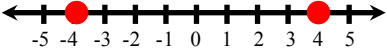
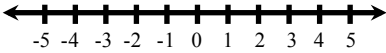
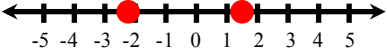
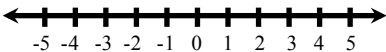
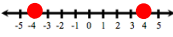
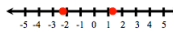


1.3 Signed Numbers

Name _____

Write each number as a signed number.	
<p>1. The top of a coral reef is 32 feet below sea level.</p> <p style="text-align: center;">-32 feet</p>	<p>2. The elevation of Mt. Shasta's peak is 14,162 feet above sea level.</p>
<p>3. The temperature in Redding in July is often as high as 110 degrees Fahrenheit.</p> <p style="text-align: center;">$+110$ degrees</p>	<p>4. The temperature near the top of Mount Shasta can be as cold as 20 degrees below zero Fahrenheit.</p>
<p>5. Elmore has overdrawn his account by \$83.27</p> <p style="text-align: center;">$-\\$83.27$</p>	<p>6. Morella has a balance of \$1,327.42</p>
Plot the numbers on a number line.	
<p>7. -4 and 4</p> 	<p>8. $2\frac{1}{2}$ and $-2\frac{1}{2}$</p> 
<p>9. $\frac{7}{5}$ and $-\frac{9}{4}$ $\frac{7}{5} = 1\frac{2}{5}$ and $-\frac{9}{4} = -2\frac{1}{4}$</p> 	<p>10. -1.2 and -2.87</p> 
Evaluate each absolute value.	
<p>11. $7 = 7$</p>	<p>12. -7</p>
<p>13. $-2\frac{1}{2} = 2\frac{1}{2}$</p>	<p>14. $5\frac{1}{3}$</p>
<p>15. $- -4 = -4$</p>	<p>16. $- 4$</p>
<p>Answers: 1. -32 ft; 3. $+110^\circ$; 5. $-\\$83.27$; 7.  ; 9.  ; 11. 7; 13. $2\frac{1}{2}$; 15. -4</p>	

Insert the correct symbol between the following pairs of numbers, <, >, or =			
17.	3	>	1.8
18.	-3		1.8
19.	4.9	>	0
20.	-5.9		0
21.	-3	>	-10
22.	-4.51		-4.32
23.	-5	=	5
24.	-6		5.2
Write the opposite of each number or variable.			
25.	Number	Opposite	
	4	-4	
26.	Number	Opposite	
	-7		
27.	Number	Opposite	
	-2.65	2.65	
28.	Number	Opposite	
	$\frac{4}{9}$		
29.	Variable	Opposite	
	x	-x	
30.	Variable	Opposite	
	-x		
31.	Number	Opposite	
	0	0	
32.	Number	Opposite	
	-3		
Answers: 17. >; 19. >; 21. >; 23. =; 25. -4; 27. 2.65; 29. -x; 31. 0			

Write an equivalent inequality using the opposite inequality symbol. For example, $-5 < 2$ could be written equivalently as $2 > -5$.	
33. $-8 > -10$ $-10 < -8$	34. $-3 < 1.5$
35. $2 \leq x$ $x \geq 2$	36. $3 \geq x$
Determine if each statement is true or false.	
37. a) 0 is a whole number True b) 0 is an integer True c) 0 is a natural number False	38. a) $\frac{3}{16}$ is a rational number b) $\frac{3}{16}$ is an integer c) $\frac{3}{16}$ is an irrational number
Answer each of the following questions with one or more of these:	
a) \mathbb{N} , Natural Numbers b) Whole Numbers c) \mathbb{Z} , Integers	d) \mathbb{Q} , Rational Numbers e) Irrational Numbers f) \mathbb{R} , Real Numbers
39. This set of numbers contains all the other sets. \mathbb{R} , Real Numbers	40. These two sets combined make up the Real Numbers.
41. This set contains only fractions or numbers that can be written as fractions. \mathbb{Q} , Rational Numbers	42. These sets contain negative numbers.
43. These two sets do not contain zero. \mathbb{N} , Natural Numbers and Irrational Numbers	44. Each of these two sets is contained in the integers.
Answers: 33. $-10 < -8$; 35. $x \geq 2$; 37. a) T, b) T, c) F; 39. \mathbb{R} ; 41. \mathbb{Q} ; 43. \mathbb{N} and Irrational Numbers	

List all the sets to which each number belongs.	
a) \mathbb{N} , Natural Numbers d) \mathbb{Q} , Rational Numbers b) Whole Numbers e) Irrational Numbers c) \mathbb{Z} , Integers f) \mathbb{R} , Real Numbers	
45. $\frac{3}{7}$ \mathbb{Q} , Rational Numbers \mathbb{R} , Real Numbers	46. -8
47. 5 \mathbb{N} , Natural Numbers Whole Numbers \mathbb{Z} , Integers \mathbb{Q} , Rational Numbers \mathbb{R} , Real Numbers	48. 0
49. $\sqrt{2}$ Irrational Numbers \mathbb{R} , Real Numbers	50. -2.7
Answers: 45. \mathbb{Q} and \mathbb{R} ; 47. \mathbb{N} , Whole Numbers, \mathbb{Z} , \mathbb{Q} and \mathbb{R} ; 49. Irrational Numbers, \mathbb{R}	