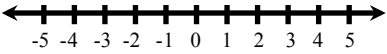
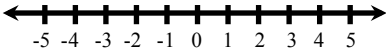
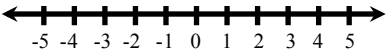
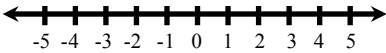
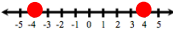
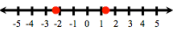


**1.3 Signed Numbers**

Name \_\_\_\_\_

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

Insert the correct symbol between the following pairs of numbers, < , > , or =			
<b>17.</b>	3	1.8	
<b>18.</b>	-3	1.8	
<b>19.</b>	4.9	0	
<b>20.</b>	-5.9	0	
<b>21.</b>	-3	-10	
<b>22.</b>	-4.51	-4.32	
<b>23.</b>	$ -5 $	$ 5 $	
<b>24.</b>	$ -6 $	5.2	
Write the opposite of each number or variable.			
<b>25.</b>	Number	Opposite	
	4		
<b>26.</b>	Number	Opposite	
	-7		
<b>27.</b>	Number	Opposite	
	-2.65		
<b>28.</b>	Number	Opposite	
	$\frac{4}{9}$		
<b>29.</b>	Variable	Opposite	
	$x$		
<b>30.</b>	Variable	Opposite	
	$-x$		
<b>31.</b>	Number	Opposite	
	0		
<b>32.</b>	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 $2 > -5$ .	
<b>33.</b> $-8 > -10$	<b>34.</b> $-3 < 1.5$
<b>35.</b> $2 \leq x$	<b>36.</b> $3 \geq x$
Determine if each statement is true or false.	
<b>37. a)</b> 0 is a whole number  <b>b)</b> 0 is an integer  <b>c)</b> 0 is a natural number	<b>38. a)</b> $\frac{3}{16}$ is a rational number  <b>b)</b> $\frac{3}{16}$ is an integer  <b>c)</b> $\frac{3}{16}$ is an irrational number
Answer each of the following questions with one or more of these: 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	
<b>39.</b> This set of numbers contains all the other sets.	<b>40.</b> These two sets combined make up the Real Numbers.
<b>41.</b> This set contains only fractions or numbers that can be written as fractions.	<b>42.</b> These sets contain negative numbers.
<b>43.</b> These two sets do not contain zero.	<b>44.</b> Each of these two sets is contained in the integers.
Answers: <b>33.</b> $-10 < -8$ ; <b>35.</b> $x \geq 2$ ; <b>37.</b> <b>a)</b> T, <b>b)</b> T, <b>c)</b> F; <b>39.</b> $\mathbb{R}$ ; <b>41.</b> $\mathbb{Q}$ ; <b>43.</b> $\mathbb{N}$ 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. $\frac{3}{7}$	46. $-8$
47. $5$	48. $0$
49. $\sqrt{2}$	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, $\mathbb{R}$	