

NAME \_\_\_\_\_  
 NAME \_\_\_\_\_

REAL NUMBER SYSTEM

NAME \_\_\_\_\_

Identify these numbers by putting them in the appropriate column... in the chart below.

$-3\frac{1}{9}$ , 12,  $-\sqrt{36}$ , 0, 8.0009,  $8.\overline{666}$ ,  $\sqrt{72}$ ,  $\sqrt{2\frac{1}{4}}$

REAL	RATIONAL	IRRATIONAL	INTEGER	WHOLE	COUNTING
$-3\frac{1}{9}$	$-3\frac{1}{9}$				
12	12		12	12	12
$-\sqrt{36}$	$-\sqrt{36}$		$-\sqrt{36}$		
0	0		0	0	
8.0009	8.0009				
$8.\overline{666}$	$8.\overline{666}$				
$\sqrt{72}$		$\sqrt{72}$			
$\sqrt{2\frac{1}{4}}$	$\sqrt{2\frac{1}{4}}$				

COMPLETE

1.  $|-16| = 16$     3.  $| -(-2) | = 2$     5.  $-\sqrt{81} = -9$   
 2.  $-|-7| = -7$     4.  $|8| - |12| = -4$     6.  $|12 - 16| = 4$

SOLVE: 7.  $|x| = 26$     8.  $|2x + 6| = 12$

$\{26, -26\}$

$2x + 6 = 12$  or  $2x + 6 = -12$

$2x = 6$

$2x = -18$

$x = 3$

$x = -9$

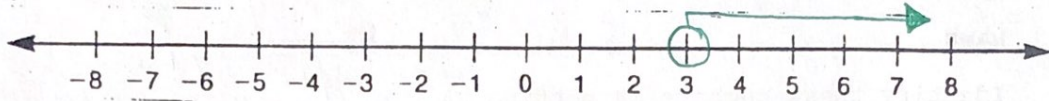
$\{-9, 3\}$

Name \_\_\_\_\_

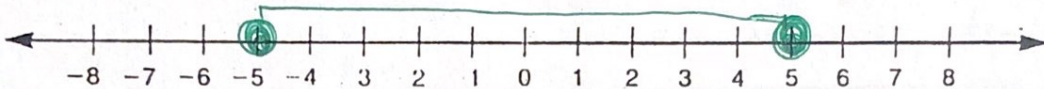
Date \_\_\_\_\_ Period \_\_\_\_\_

Graph each set of real numbers.

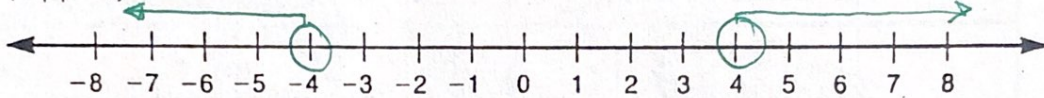
1.  $\{x: x > 3\}$



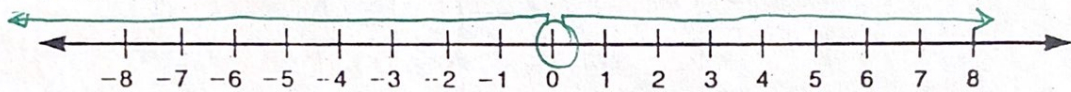
2.  $\{x: |x| \leq 5\}$



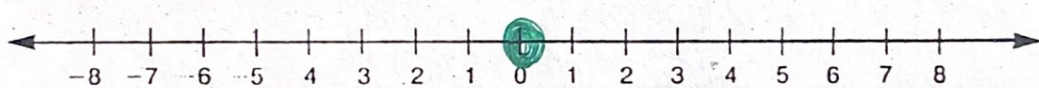
3.  $\{x: |x| > 4\}$



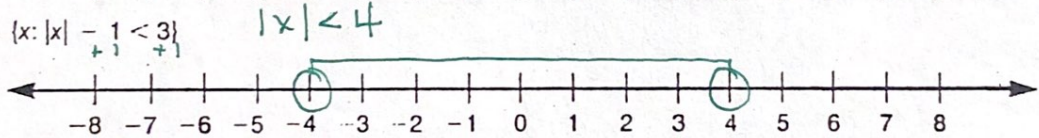
4.  $\{x: |x| > 0\}$



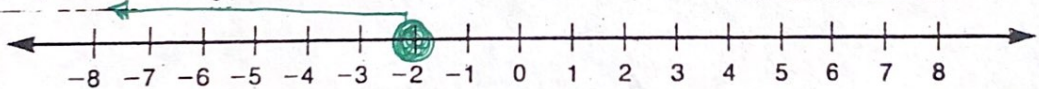
5.  $\{x: |x| \leq 0\}$



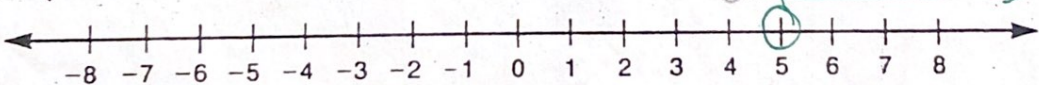
6.  $\{x: |x - 1| < 3\}$



7.  $\{x: x \leq -2\}$



8.  $\{x: x > 4 \text{ and } x > 5\}$



9.  $\{x: x < 2 \text{ or } x < -3\}$

