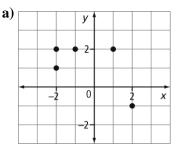
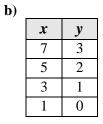
5.5B – Domain and Range WORKSHEET

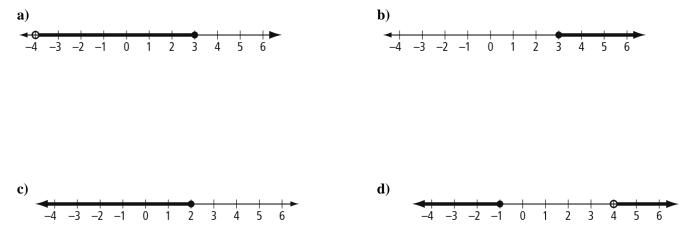
Name:	
Date:	

1. List the domain and range of each relation.





- **c**) (10, 5), (8, 4), (6, 3), (4, 2), (2, 1)
- 2. Describe the set of numbers indicated by each number line using words and interval notation.



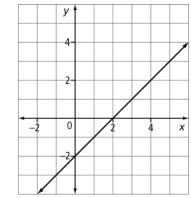
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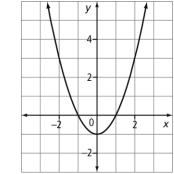
- 3. Represent the set of numbers indicated using a number line.
 - **a**) all real numbers less than 5 but greater than or equal to 0

b) (-4, 7]

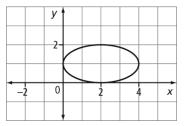
a)

4. Give the domain and range of each graph using words, a number line, interval notation, and set notation.





c)



d)

b)

	1	y'			
		2			
	(
-2	2	0	Ĩ	2	x
		-2	 0		0 2

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ANSWERS:

1. a) domain: {-2, -1, 1, 2}, range: {-1, 1, 2} b) domain: {7, 5, 3, 1}, range: {3, 2, 1, 0} c) domain: {10, 8, 6, 4, 2}, range: {5, 4, 3, 2, 1}

2. a) all real numbers greater than -4 and less than or equal to 3, (-4, 3]

b) all real numbers greater than or equal to 3, $[3, \infty)$ **c**) all real numbers less than or equal to 2, $(-\infty, 2]$ **d**) all real numbers less than or equal to -1 as well as all real numbers greater than 4, $(-\infty, -1]$ or $(4, \infty)$

3. a) 2 ż 0 4 b) 4 -3 -2 -1 0 3 5 2 -4 **4.** a) domain: all real numbers, $(-\infty, \infty)$, $\{x \in \mathbb{R}\}$ -4 -3 -2 -1 0 1 2 3 4 5 range: real numbers, $(-\infty, \infty)$, $\{y \in \mathbb{R}\}$ -4 -3 -2 -1 0 1 2 3 4 5 **b**) domain: all real numbers, $(-\infty, \infty)$, $\{x \in \mathbb{R}\}$ -4 -3 -2 -1 0 1 2 3 4 5 6 range: all real numbers greater than or equal to -1, $[-1, \infty), \{y \mid y \ge -1, y \in \mathbb{R}\}$ -4 -3 -2 -1 0 1 2 3 4 5 6 c) domain: all real numbers greater than or equal to 0 and less than or equal to 4, [0, 4], $\{x \mid 0 \le x \le 4, x \in \mathbb{R}\}$ -4 -3 -2 -1 0 1 2 3 4 5 6 range: all real numbers greater than or equal to 0 and less than or equal to 2, $[0, 2], \{y \mid 0 \le y \le 2, y \in R\}$ **⊢**► 2 +

d) domain: negative one, [-1, -1], $\{x = -1\}$ -4 -3 -2 -1 0 1 2 3 4 5 6range: all real numbers greater than 1, $(1, \infty)$, $\{y | y > 1, y \in R\}$ -4 -3 -2 -1 0 1 2 3 4 5 6

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