## BLM 6-7

## **Section 6.3 Extra Practice**

**1.** Describe the set of numbers indicated by each number line using words and interval notation.



- 2. 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]
- **3.** Give the domain and range of each graph using words, a number line, interval notation, and set notation.





4. List the domain and range of each relation.



c) (10, 5), (8, 4), (6, 3), (4, 2), (2, 1)

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- 5. A relation is given by the formula y = 3.5x + 5.
  - a) If the domain of the relation is [-10, 10], what is the range?
  - **b)** Graph the relation on a graphing calculator. Record the window values you chose and sketch a graph of the relation.
- **6.** A relation consists of integers, where the second number is one more than the square of the first number. Write five ordered pairs for this relation.
- 7. The table shows the number of registered vehicles in Canada for various years.

	Number of	
Year	<b>Registered Vehicles</b>	
1916	128 328	
1956	4 200 000	
1975	11 200 000	
1997	17 400 000	
2008	28 500 000	

- a) Give the domain and range for this relation.
- **b)** Graph the relation.

**8.** The table shows the heights of the tallest buildings in Calgary.

	Height
Building	(m)
1. Suncor Energy Centre	215
West Tower	
2. Bankers Hall	197
3. TransCanada Tower	177
4. Canterra Tower	177
5. First Canadian Centre	167
6. Western Canadian Place	164
North	
7. TD Canada Trust Tower	162
8. Scotia Centre	155
9. Nexen Building	152

- a) Give the domain and range for this relation.
- **b)** Graph the relation.