## **Characteristics of Functions**

#### **Even and Odd**

Even and Odd					
	Even	Odd	Neither		
Algebraically					
Graphically					

NOTE: All constants really have  $\_\_\_$ , and  $x^0$  is  $\_\_\_$ .

Determine if the functions are even, odd, or neither.

$$1. \quad f(x) = x^3 - x$$

2. 
$$f(x) = x^2 + 1$$

3. 
$$f(x) = 2x^4 - 3$$

$$4. \quad f(x) = x^3 + 2x$$

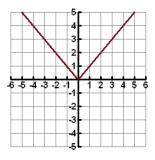
5. 
$$f(x) = -x^3$$

6. 
$$f(x) = x^3 - x^2$$

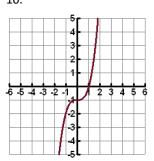
7. 
$$f(x) = x^2 + 3$$

8. 
$$f(x) = x^3 + 4x + 1$$

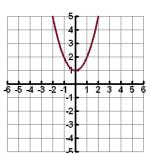
9.



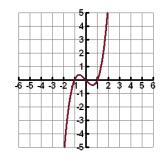
10.



11.



12.



#### **Discrete and Continuous**

	Discrete	Continuous
Definition		
Examples		

Determine if the scenario would be discrete or continuous.

- 1. Recording your height as you get older
- 2. The number of t-shirts ordered for a fundraiser

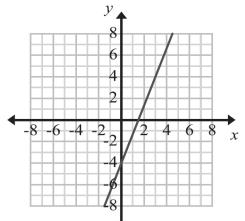
### Domain and Range

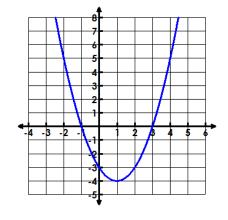
The \_\_\_\_\_ of a relation is the set of all \_\_\_\_ or \_\_\_\_.

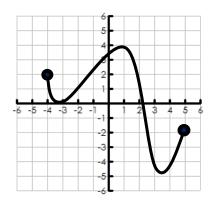
The \_\_\_\_\_ of a relation is the set of all the \_\_\_\_\_ or \_\_\_\_.

Notation	Definition	Examples
Set Notation		
Algebraic Notation		
Interval Notation		

# Determine the domain of the following functions.







Domain:

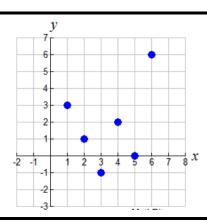
Domain:

Domain:

Range:

Range:

Range:



Discrete or Continuous?

Domain:

Range: