$\qquad$
$\qquad$

## Characteristics of Functions

| Even and Odd |  |  |  |  |
| :--- | :--- | :--- | :--- | :---: |
| Algebraically | Even | Odd | Neither |  |
|  |  |  |  |  |
| Graphically |  |  |  |  |
|  |  |  |  |  |

NOTE: All constants really have $\qquad$ and $x^{0}$ is $\qquad$ .

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

1. $f(x)=x^{3}-x$
2. $f(x)=x^{2}+1$
3. $f(x)=2 x^{4}-3$
4. $f(x)=x^{3}+2 x$
5. $f(x)=-x^{3}$
6. $f(x)=x^{3}-x^{2}$
7. $f(x)=x^{2}+3$
8. $f(x)=x^{3}+4 x+1$
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 $\qquad$ of a relation is the set of all $\qquad$ or $\qquad$ .

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| Notation | Definition | Examples |
| :---: | :---: | :---: |
| Set Notation |  |  |
| Algebraic Notation |  |  |
| Interval Notation |  |  |

Determine the domain of the following functions.


Domain:
Range:


Domain:
Range:


Domain:
Range:


Discrete or Continuous?
Domain:
Range:

