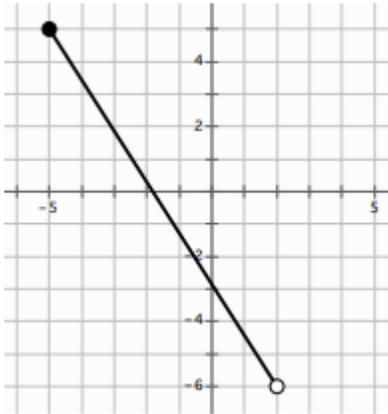


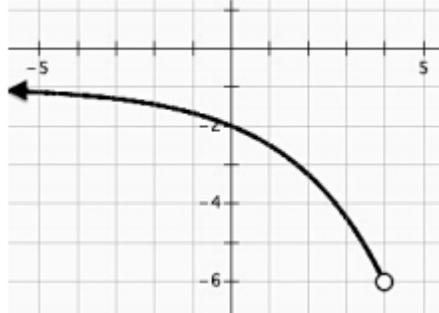
Determine if the following function is increasing or decreasing and state its domain and range with an inequality.



1. Increasing or Decreasing?

Domain:

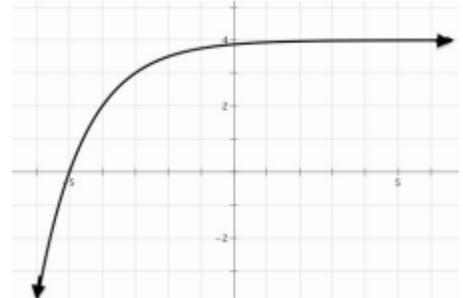
Range:



2. Increasing or Decreasing?

Domain:

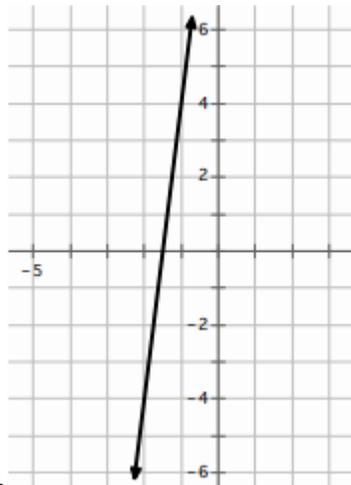
Range:



3. Increasing or Decreasing?

Domain:

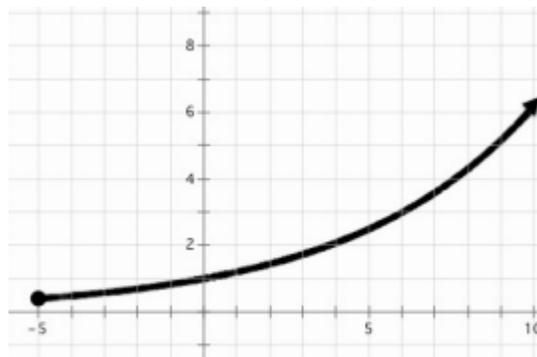
Range:



4. Increasing or Decreasing?

Domain:

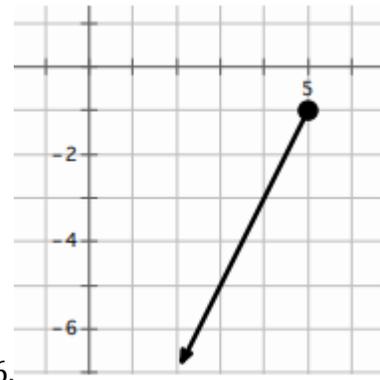
Range:



5. Increasing or Decreasing?

Domain:

Range:



6. Increasing or Decreasing?

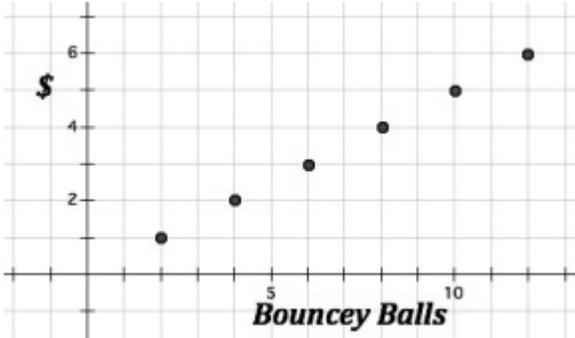
Domain:

Range:

For the following contexts or representations determine if it is continuous or discrete. Justify your answer.

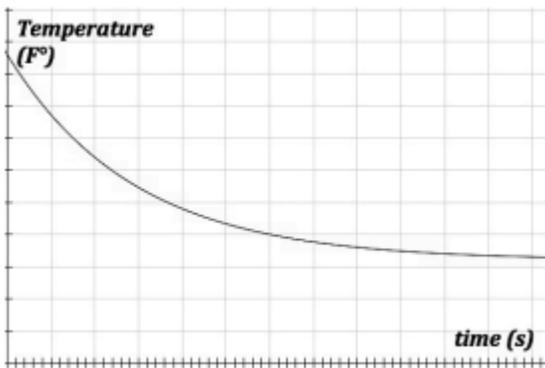
7. Susan puts exactly \$5 in her piggy bank each week.

8.



9. Marshal tracks the number of hits he gets each baseball game and is recording his total number of hits for the season in a table.

10.



11. The distance you have traveled since the day began.

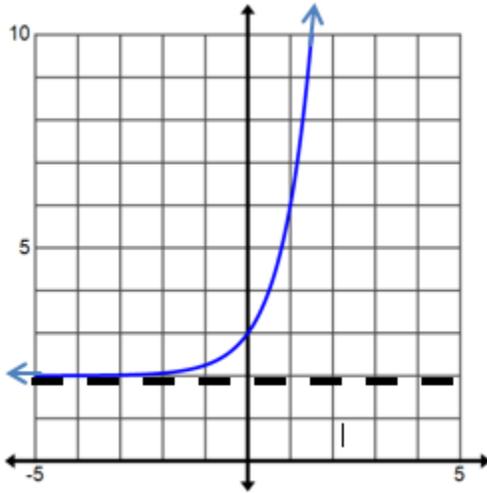
Number of gumballs	Cost
5	10¢
10	20¢
15	30¢
20	40¢

12.

13. Stephen deposited \$1,000 in a savings account at the bank when he turned 21. He deposits \$100 each month. He plans to never withdraw any money until the balance is \$150,000.

Determine the following key features for each context or representation below: Is it a function, domain, range, intervals of increase and decrease, discrete or continuous, x-intercept, and y-intercept.

14. Is the graph below a function? _____ If not, why? _____



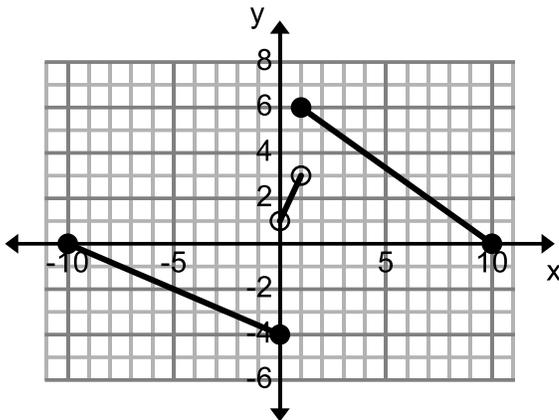
Domain: _____ Range: _____

Increasing or Decreasing _____

x-intercept: _____ y-intercept: _____

Continuous or Discrete _____

15. Is the graph below a function? _____ If not, why? _____



Domain: _____ Range: _____

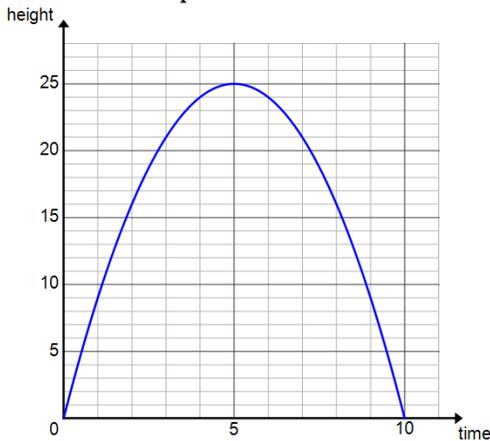
Increasing: _____

Decreasing: _____

x-intercept: _____ y-intercept: _____

Continuous or Discrete _____

16. Billy is at the beach and launches his toy rocket in the air. It shoots up 25 feet in the air and comes back down to crash in his sister's sandcastle. The following graph shows the height of the rocket with respect to time in seconds:



During what time interval is the rocket traveling up?

During what time interval is the rocket falling?

How long is the rocket airborne?

Give the range of heights the rocket travelled during it's flight.