

Name: _____ Date: _____

1. Often we have a collection of isolated data points and want to make a visual display in order to search for patterns. When the values of the independent variable are evenly spaced, a scatterplot may be useful.
 - A) True
 - B) False

2. A _____ is a graph consisting of isolated points, with each dot corresponding to a data point.
 - A) bar graph
 - B) line graph
 - C) scatterplot
 - D) pie chart

3. Scatterplots can be used to represent large numbers of data points that cannot be reasonably displayed using a bar graph.
 - A) True
 - B) False

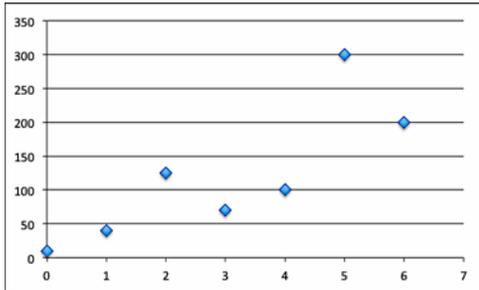
4. To make a _____, we begin with a scatterplot and join the adjacent points with straight line segments.
 - A) line graph
 - B) bar chart
 - C) pie chart
 - D) smoothed line graph

5. An increasing line graph indicates a _____ growth rate.
 - A) stable
 - B) positive
 - C) negative
 - D) neutral

6. A smoothed line graph is made from a _____ by joining data points smoothly with curves instead of line segments.
 - A) line graph
 - B) bar graph
 - C) scatterplot
 - D) pie chart

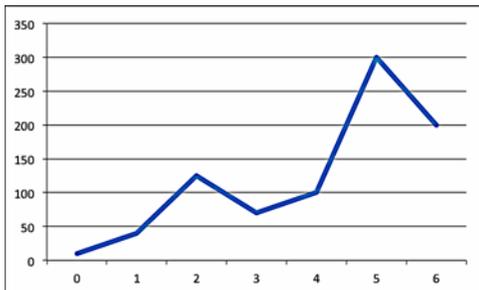
7. A smoothed line graph may be appropriate when the growth rate is continuous.
- A) True
 - B) False

8. The figure below is an example of what type of graph?



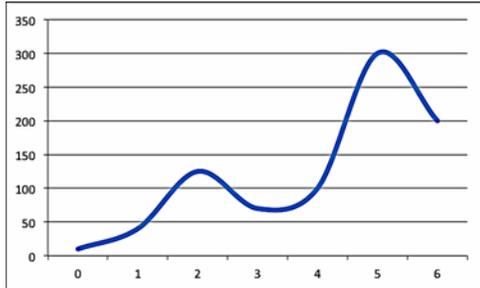
- A) Line graph
- B) Scatterplot
- C) Smoothed line graph
- D) Bar graph

9. The figure below is an example of what type of graph?



- A) Line graph
- B) Scatterplot
- C) Smoothed line graph
- D) Bar graph

10. The figure below is an example of what type of graph?



- A) Line graph
- B) Scatterplot
- C) Smoothed line graph
- D) Bar graph

11. In cleaning toxic waste sites, typically the amount of waste eliminated decreases over time. That is, the amount of toxic waste remaining as a function of time is decreasing at a decreasing rate. What would a graph of this function look like?

- A) It would be decreasing, becoming more steep over time
- B) It would be increasing, becoming more steep over time
- C) It would be increasing, becoming less steep over time
- D) It would be decreasing, becoming less steep over time

12. As we age, we grow in height. At a certain age, we reach our full height. Suppose we wanted to look at height as a function of age from birth to 20 years of age. What would a graph of this function look like?

- A) It would be decreasing, becoming more steep over time
- B) It would be increasing, becoming more steep over time
- C) It would be increasing, becoming less steep over time
- D) It would be decreasing, becoming less steep over time

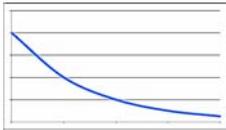
13. Suppose we have some money deposited into a savings account earning a fixed interest rate and we do not withdraw any amount from this account over time. If we wanted to look at the dollars in the account as a function of time, what would the graph of this function look like?

- A) It would be decreasing, becoming more steep over time
- B) It would be increasing, becoming more steep over time
- C) It would be increasing, becoming less steep over time
- D) It would be decreasing, becoming less steep over time

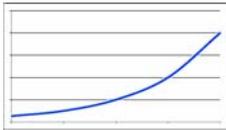
14. A company's number of sales each year is half of what it was the year before. Suppose we wanted to look at the number of sales as a function of time. What would a graph of this function look like?
- A) It would be decreasing, becoming more steep over time
 - B) It would be increasing, becoming more steep over time
 - C) It would be increasing, becoming less steep over time
 - D) It would be decreasing, becoming less steep over time

15. As an automobile ages, gas mileage typically decreases, and it decreases at an increasing rate. Which graph best represents this?

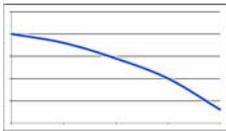
A)



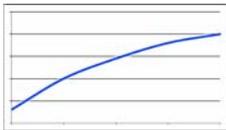
B)



C)

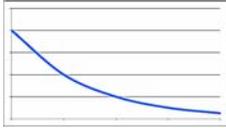


D)

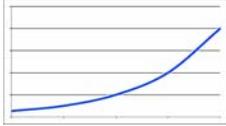


16. The population in a certain city has been increasing and it is increasing at a decreasing rate. Which graph best represents this?

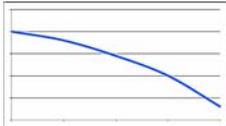
A)



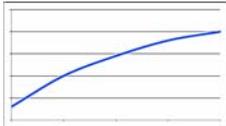
B)



C)

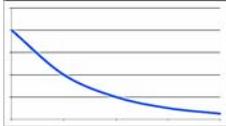


D)

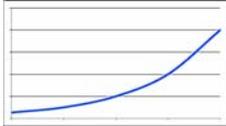


17. Once you purchase a new computer, its value decreases and it decreases at a decreasing rate. Which graph best represents this?

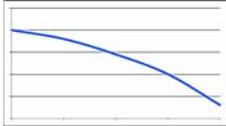
A)



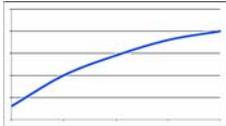
B)



C)

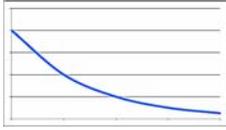


D)

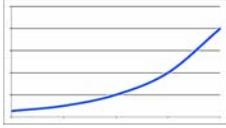


18. The population of the United States is increasing and it is increasing at an increasing rate. Which graph best represents this?

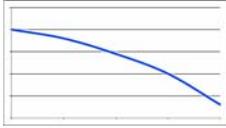
A)



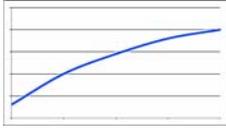
B)



C)



D)



19. A population of bears is introduced into a game preserve. Over the first five years, the population shows a negative growth rate. The growth rate is positive over the following five years. Sketch a possible graph of the bear population as a function of time.

20. The following table shows the average weight of newborn boys from birth to six months:

Age (in months)	0	1	2	3	4	5	6
Weight	7.16	9.15	10.91	12.56	14.00	15.43	16.53

Represent these data with a bar graph.

21. The table below shows the number of traffic tickets given out in a certain city for the first six months of the year:

Month	Jan	Feb	Mar	Apr	May	Jun
Number of tickets	75	50	86	43	96	62

Represent these data in scatterplot.