Table to Equation:

1)

The table below shows the population of a state over 40 years.

Year	Population
1960	4,556,155
1970	5,084,411
1980	5,880,095
1990	6,628,637
2000	8,049,313

Using an exponential model, in what year will the population initially exceed 10 million?

2)

The table below shows the arm spans and heights of 8 students in a class.

Arm Span (x)	**Height** (y)
63 inches	65 inches
71 inches	70 inches
62 inches	60 inches
66 inches	64 inches
65 inches	68 inches
72 inches	73 inches
58 inches	60 inches
62 inches	64 inches

Using a linear model for the data, what is the ***approximate*** predicted arm span of a student who is 6 feet tall?

3)

The table below shows the shoe size and height of 8 players on a basketball team.

Shoe Size	**Height** (inches)
8.5	65.5
10.0	68.5
12.0	72.7
9.5	67.6
10.5	69.7
9.0	66.3
11.0	70.6
13.0	74.9

Using the line of best fit for the data, ***about***how much does height increase for each 1.0 increase in shoe size?

Boxplot/Summary Statistics:

4) Create a box plot for the data below and fill in the information in the blanks.

22, 34, 25, 32, 41, 21, 23, 36, 37, 30, 38, 44, 32, 45

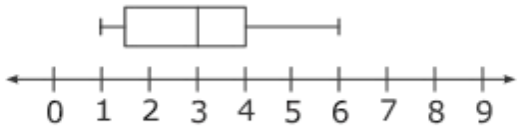
Mean: _____ Median: _____ Lower Quartile: _____ Range: _____ Outlier(s)_____

Upper Quartile: _____ Interquartile Range: _____ Minimum _____ Maximum _____

Standard Deviation: _____

5)

The box plot below represents the number of pets 9 different families own.



Number of Pets

Which set of data could represent the number of pets these families own?

A. {1, 1, 1, 2, 3, 4, 4, 4, 5}

B. {1, 1, 2, 3, 3, 4, 4, 4, 6}

C. {1, 1, 1, 2, 4, 4, 4, 4, 6}

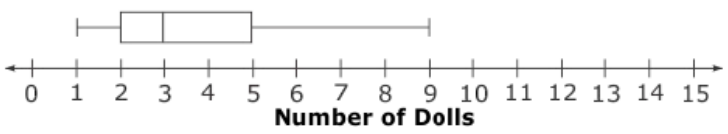
D. {2, 2, 3, 3, 4, 4, 4, 4, 6}

6)
The data set below shows the number of dolls that 11 different children own.

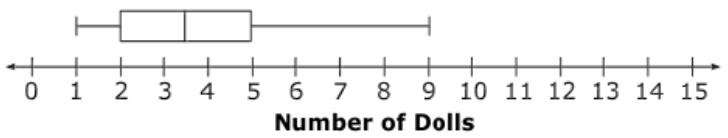
{1, 5, 3, 4, 9, 6, 2, 3, 3, 5, 2}

Which box plot represents the data set?

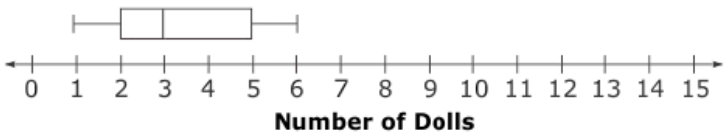
A.



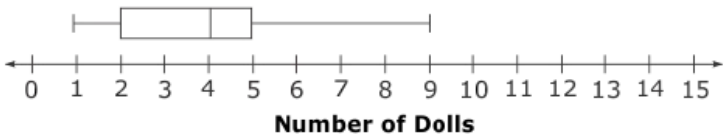
B.



C.



D.



7.) The table below shows the heights, in feet, of the five tallest buildings in three cities in the United States. (SEE BELOW) Which statement is ***true*** about the data?

A.) The interquartile range for New York's buildings is less than the interquartile range for Boston's buildings.

B.) The interquartile range for Chicago's buildings is less than the interquartile range for Boston's buildings.

C.) The interquartile range for New York's buildings is greater than the interquartile range for Chicago's buildings.

D.) The interquartile range for Chicago's buildings is greater than the interquartile range for New York's buildings.

New York	Chicago	Boston
1,250	1,451	790
1,200	1,389	749
1,046	1,136	614
1,046	1,127	601
977	1,007	600

Standard Deviation:

8) The data set shows the test scores of a group for the last two tests. Which data set had the smaller standard deviation and what was its standard deviation?

Test 1: {75, 75, 85, 80, 65, 70, 65} Test 2: {95, 85, 85, 90, 90, 95, 100}

Test _____, Standard Deviation: _____

9)

Four data sets are shown below.

Set 1: {10, 19, 38, 50, 51}
Set 2: {5, 21, 26, 39, 51}
Set 3: {9, 38, 50, 50, 51}
Set 4: {5, 28, 28, 28, 51}

Which data set has the largest standard deviation?

A. Set 1

B. Set 2

C. Set 3

D. Set 4

Scatterplot/Line of Best Fit:

10)
The table below shows the time in minutes and the distance a person ran on different days.

Time (minutes)	50	89	96	114
Distance (miles)	6.5	11	12.25	14.5

What does the rate of change for this data represent?

A. An average increase of 0.12 miles in distance for every minute longer a person runs

B. An average decrease of 0.12 miles in distance for every minute longer a person runs

C. An average increase of 0.18 miles in distance for every minute longer a person runs

D. An average decrease of 0.18 miles in distance for every minute longer a person runs

11)
The table below shows the number of calories burned per hour by a person running at different speeds.

Speed (mph)	2	3	4	5	6
Calories Burned	213	345	460	510	675

Using a line of best fit, what does the slope represent?

A. the average number of calories burned per hour as the speed increases by 1 mph

B. the average number of calories burned per hour as the speed decreases by 1 mph

C. the average number of calories burned per hour as the speed remains constant

D. the average number of calories burned per hour if no exercise takes place

Correlation Coefficient

12)
The table below shows the amount of time seven students studied for a test and their respective test scores.

Time Spent Studying (minutes)	**Test Score**
25	77
0	72
10	80
30	85
60	96
75	98

Which describes the relationship between the time a student spent studying and their test score?

A. There is a strong, positive correlation between study time and test scores.

B. There is a strong, negative correlation between study time and test scores.

C. There is a weak, positive correlation between study time and test scores.

D. There is a weak, negative correlation between study time and test scores.

13)
What is the ***approximate*** correlation coefficient of the line of best fit for the data shown in the table below?

x	***y***
1	0.97
2	0.95
3	0.85
4	0.88
5	0.71
6	0.75
7	0.68

A. 1.03

B. 0.88

C. ⁻0.05

D. ⁻0.94