Part A: Categorical Data [S-ID.5]

1. Krista conducted a survey on breakfast preference and gender.

   A) **Determine** the percent of surveyed students that are female.

	Cereal	Other
Female	22	36
Male	13	24

   B) Given a student is female, **determine** the probability they prefer cereal.

   C) **Determine** if there is an association between gender and breakfast preference. **Justify** your response.

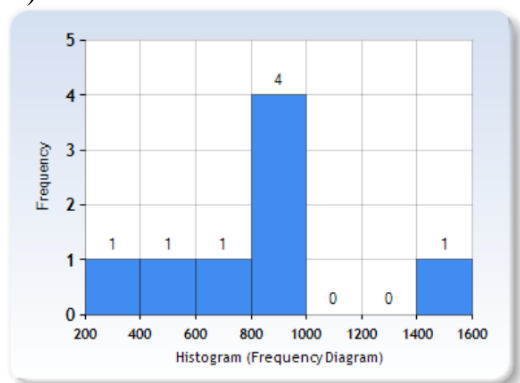Part B: Data Distributions [S-ID.2]

2. **Sketch** a line plot to represent the following set of data:
   Age of Candidates: 27, 28, 29, 30, 31, 33, 33, 33, 34, 35

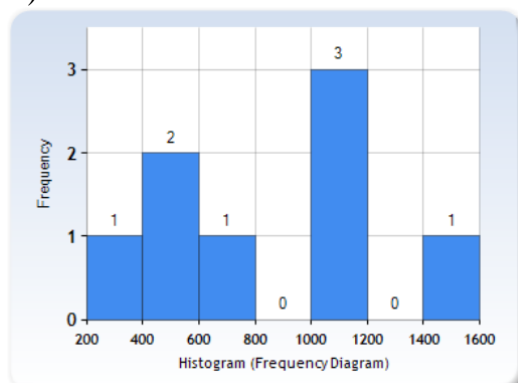3. **Select** all the histogram that represents the following set of data:
   550° F   802° F   904° F   965° F   950° F   1420° F   210° F   520° F
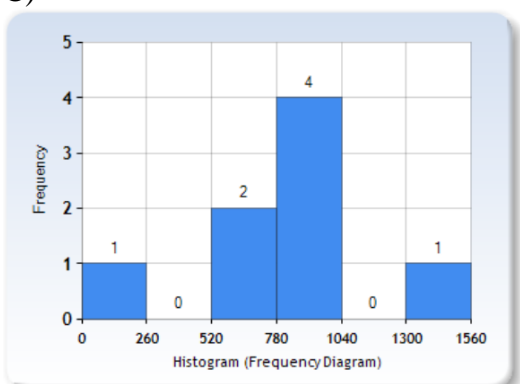
   A)
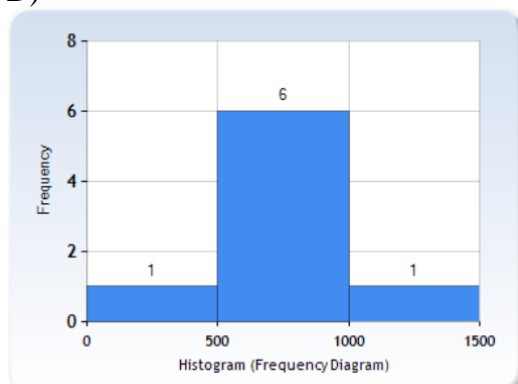

   B)

   C)

   D)

4. An arcade has prizes that range in cost from 1 ticket to 100 ticket. A new prize is added that costs 150 tickets. **Select** whether the value of each statistic for the cost of prizes increases, decreases, or cannot be determined.

A) Mean	Increases	Decreases	Cannot be Determined
B) Median	Increases	Decreases	Cannot be Determined
C) Standard Deviation	Increases	Decreases	Cannot be Determined

Part C: Scatter Plots [S-ID.6]

5. As part of a study for his Economics course, Michael surveyed ten random adults and plotted their age versus income in Excel.
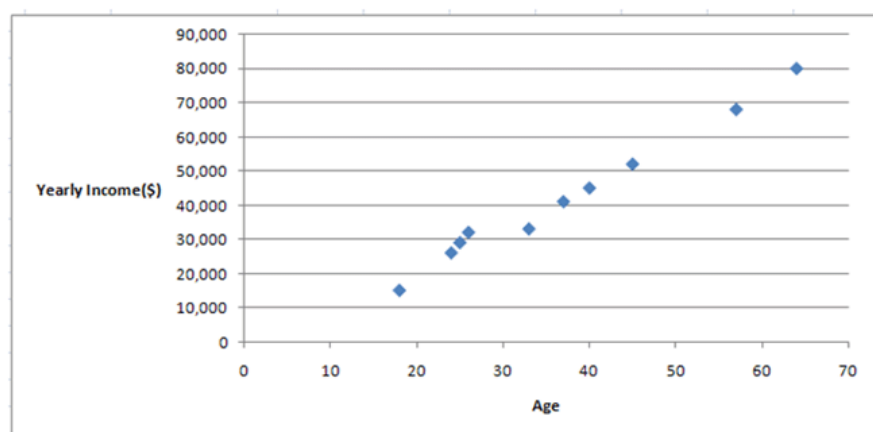
A) **Approximate** the line of best fit on the graph and with a function.

B) **Describe** the distribution of the data.

C) **Predict**, using the line of best fit, the yearly income of an individual with age 50.

6. The data below show the height, in inches, and the weight, in pounds, of ten male students in Mr. Alexander's PE class.

Height (inches)	50	54	56	57	59	60	61	61	62	64
Weight (pounds)	135	152	147	148	165	175	172	189	187	192

According to the linear model that best fits the data, **determine** the predicted weight of a person with a height of 62 inches.