3.3 HOMEWORK HANDOUT – GRAPHING WITH TECHNOLOGY

PART A

1. Emma and Daniel are surveying the time in minutes, it takes students to arrive at school from home. They collected the following data:

Bus Times	14	18	16	22	25	12	32	16	15	18
Car Times	12	10	13	14	9	17	11	10	8	11

   a) Using Google Sheets, create a double box-and-whisker plot comparing the times it takes for students to arrive at school either by car or by bus.
   b) Who has the higher average time, bus or car?
   c) Whose timing (car or bus) is more consistent?

2. The data listed below are the heights of 24 swimmers (in centimeters). Create an appropriate graph to display this data.

155	155	156	157	158	159	159	160	162	162	163	163
164	165	166	167	168	168	170	172	174	174	175	177

3. The table below displayed the number of playoff wins each team has had since 2005. Create an appropriate graph to display this data.

Pittsburgh Penguins	Tampa Bay Lightening	Washington Capitals	New York Rangers	Ottawa Senators	Vancouver Canucks
103	98	71	71	41	45

4. The table below shows the fat grams and calories for several snack foods.

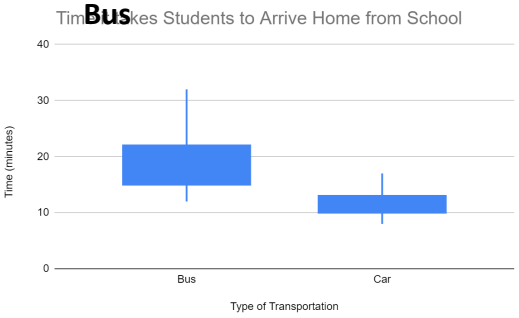
Food	Fat grams per serving	Calories per serving
Doughnut	13	306
Corn Chips	13	200
Pudding	3	50
Cake	13	230
Snack Crackers	6	140
Ice Cream (light)	5	130
Yogurt	2	70
Cheese Pizza	18	410

   a) Create a scatter plot to display this data.
   b) Determine if the trend is linear or non-linear. Add a Line/Curve of Best Fit to your graph.
   c) Adjust your scales to predict the number of calories a snack with 10 grams of fat per serving would have. Is this an example of interpolation or extrapolation?
   d) Adjust your scales if need to predict the grams of fat per serving a 525 calorie snack would have. Is this an example of interpolation or extrapolation?

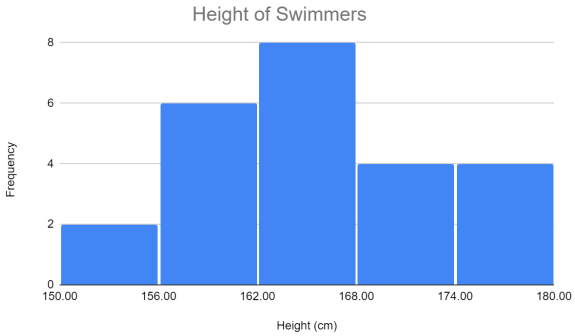
ANSWERS

1.

a)

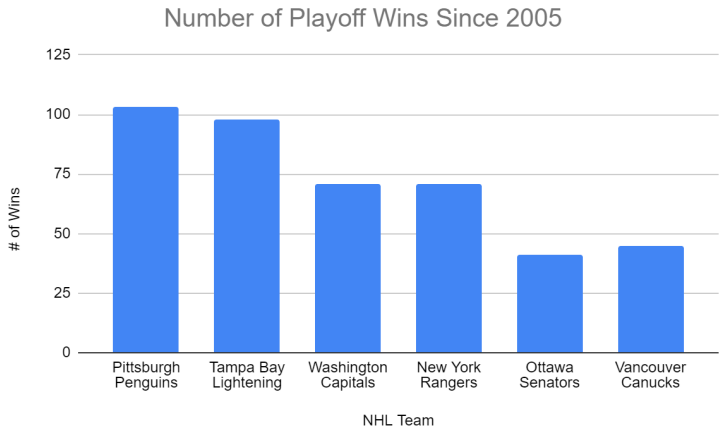


2.



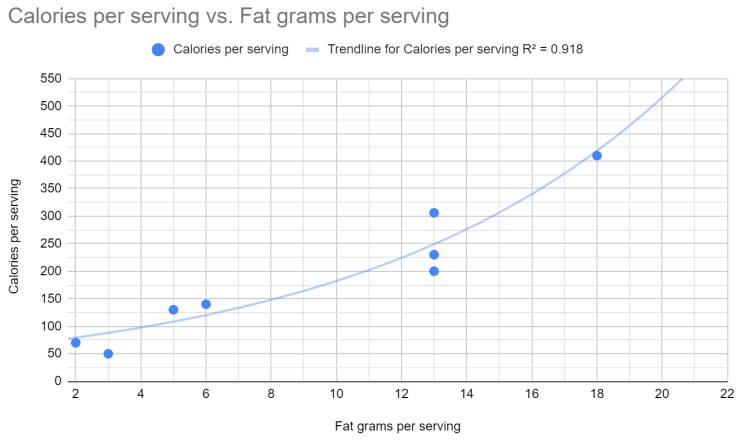
c) Car

3.



4.

a)



b) Non-linear

c) Approximetly 180 calories. Interpolation.

d) Approximetly 20.1 grams. Extrapolation.