Assessment : Data Analysis Tools

name: _____   date: _____

Outcome: Data					
35%	Level 1 (55%)	Level 2 (65%)	Level 3 (75%)	Level 4 (90%)	Level 4+ (100%)
Student has not yet demonstrated understanding of the standard.	Student is demonstrating an emerging understanding of the standard.	Student's demonstration of understanding is approaching the standard.	Student's demonstration of understanding is reaching the standard.	Student's demonstration of understanding is exceeding the standard.	Student's demonstration of understanding is extending the standard.

1. The following table shows the top ten highest paid YouTube stars of 2020 according to Forbes Media. Prepare a box plot of the data below. Be sure to show your scale clearly.

YouTube Star	Earnings (millions of $)
Ryan Kaji	29.5
Mr. Beast (Jimmy Donaldson)	24
Dude Perfect	23
Rhett and Link	20
Markiplier (Mark Fischbach)	19.5
Preston Arsement	19
Nastya (Anastasia Radzinskaya)	18.5
Blippi (Stevin John)	17
David Dobrik	15.5
Jeffree Star	15

2.

r = _____   r = _____   r= _____
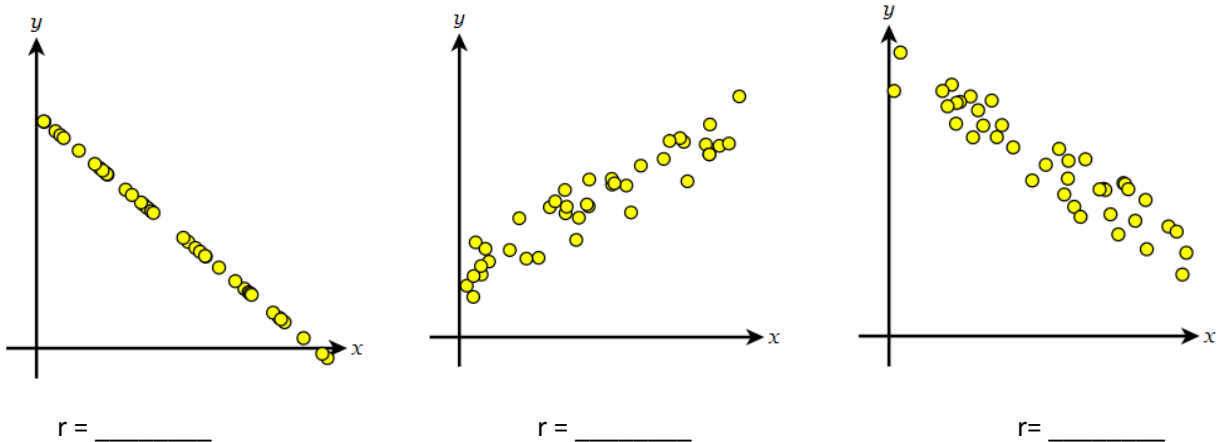
a) Match the following correlation coefficients to the correct graph: -0.95, -0.82, 0.85
b) Classify each of the above graphs as positive/negative AND strong/moderate/weak

3. The annual profits for a company are given in the following table. Using technology perform linear regression on the data.

Years since 2009	Profits (in thousands of dollars)
0	104
1	140
2	159
3	162
4	166
5	170

a) What is the correlation coefficient?

b) Identify the type of correlation based on the correlation coefficient:

c) Use the graph to predict what the profits will be in:
i)   2018

ii)   2025

d) Use the graph to predict when the profit will reach $400 000.