Practice Writing Algebraic Equations from a Graph

Name_____

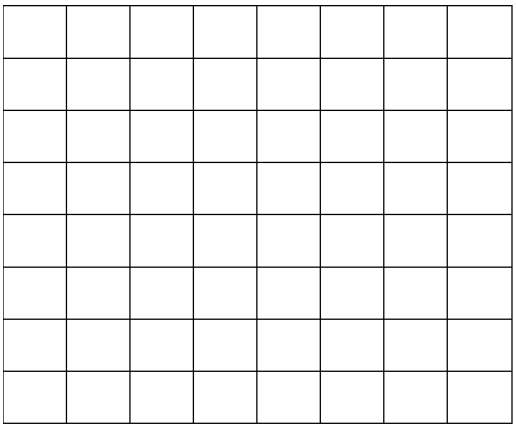
GRADING USE ONLY

Slope_____ Equation writing_____ Interpretation_____ Calculation_____

For each example below, graph the data set and answer the questions that follow.

1.

Pokemon Caught	Time (hours)
1	0
4	2
7	4
10	6
13	8



a) Calculate the slope of the line, and include the units

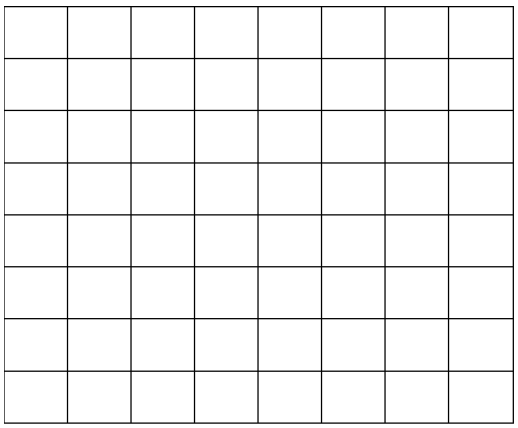
b) Write the mathematical model of the graph in y=mx + b format. Include units for the slope.

c) Explain what your y-intercept signifies in real life.

d) Using your model, calculate how many pokemon you can catch in 85 hours.

2.

Mg of Caffeine	Heartrate (beats per minute)
0	72
5	80
10	88
15	96
20	104



a) Calculate the slope of the line, and include the units

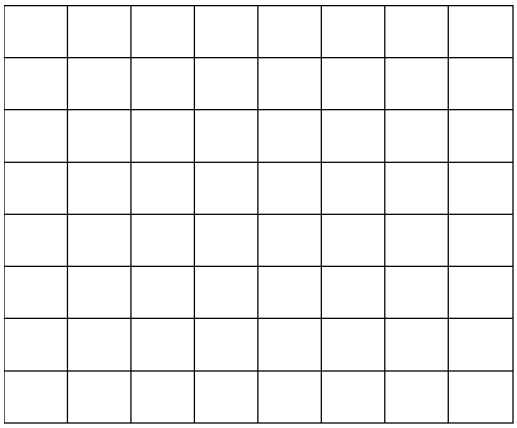
b) Write the mathematical model of the graph in y=mx + b format. Include units for the slope.

c) Explain what your slope means.

d) Using your model, calculate how fast your heart would beat with 50 mg of caffeine.

3.

Amount of light (lumens)	height (cm)
5	8
10	16
15	24
20	32
25	40



e) Calculate the slope of the line, and include the units

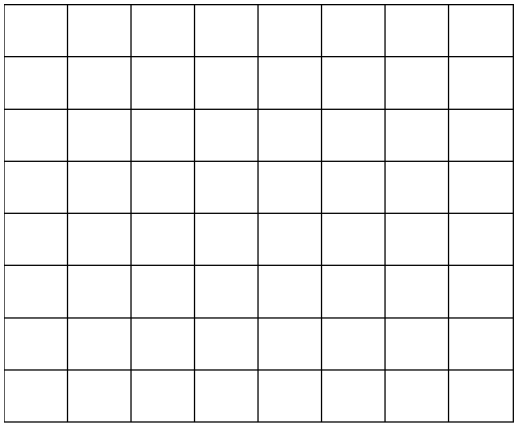
f) Write the mathematical model of the graph in y=mx + b format. Include units for the slope.

g) Explain what your y-intercept signifies in real life.

h) Using your model, calculate how tall a plant grows when it has 17 lumens of light exposure.

4.

Time studying (hours)	Test Grade
2	90
4	80
6	70
8	60
10	50



a) Calculate the slope of the line, and include the units

b) Write the mathematical model of the graph in y=mx + b format. Include units for the slope.

c) Explain what your slope means.

d) Using your model, what amount of time would you need to study to get a 100%?