Exercise 1:

a.

Trial	Reaction Time (ms)
1	260.
2	276.
3	262.
4	270.
5	258.
6	258.
7	242.
8	243.
9	261.
10	264.
Table 1: Reaction Time	

b. My average reaction time for this game is 234. ms.

Exercise 2:
The percent discrepancy in our measurement is .18%

Exercise 3:
The percent difference is -1%

Exercise 4:

a.

	Trial	Time to Speak (s)
	1	3.01
	2	2.95
	3	3.05
	4	2.95
	5	2.87

	6	3.07
	7	2.81
	8	2.79
	9	2.85
	10	2.92
	Table 2: Time to Speak	
Average:		2.93
Std. Dev:		0.1

Exercise 5:
The standard deviation for my reaction times from Activity 1 is 10 ms. The average of my reaction times is 234 ms, but since we have a standard deviation of 10ms, we can say that the true value falls within the following range: [240, 220].

Exercise 6:

a. There are 4 significant figures in this value
b. There are 5 significant figures in this value
c. There is 1 significant figure in this value
d. There are 3 significant figures in this value
e. There are 5 significant figures in this value

Exercise 7:

a. The perimeter of the rectangle is 11.2 cm
b. The area of the rectangle is 7.7 cm^2
c. The area of the circle is 18 cm^2

Exercise 8:

a. The initial volume before the object is submerged is 10.5mL, and the volume after is 12.8mL. Thus, the volume of the submerged object is 2.3mL.
b. The density of this object is 25 g/mL.
c. The percent discrepancy in our measurement is 17%.

Exercise 9:
The height of the dog is 6.1 x 10^2 mm.

Exercise 10:

a. The graph does not follow the second rule, as the data does not take up most of the plot.
b. The graph also does not follow the fourth rule, as the dots in the scatter plot are connected.
c. The graph does not follow the third rule, as each axis is not clearly labeled with the variable name and units of measurement.
d. The graph does not follow the sixth rule, as there is not a descriptive title, moreover there is no title at all.
e. The graph does not follow the first rule, as the independent variable is not on the horizontal axis, and is instead on the vertical axis.

Exercise 11:

The exponential fit has a much better fit; the data in the exponential fit is randomly distributed around the fitted curve, suggesting that we have found the correct format of the underlying curve. Additionally, the exponential curve is much closer in fit to the data than the linear curve; on average, the distance between the curve and the data point is smaller in the exponential fit than it is in the linear fit.

Exercise 12:

a. The speed of the inchworm in inches per minute is 11.6 in/minute ± .5 in/minute.
b.

Time (s)	Position (cm)	Time (minutes)	Position (in)
5.2	2.9	0.087	1.1
9.7	5.1	0.16	2.0
15.1	8.3	0.25	3.3
20.3	10.2	0.34	4.0
25.3	13.3	0.42	5.2
30.7	16.9	0.51	6.7
36.2	19.0	0.60	7.5
41.4	22.6	0.69	8.9
46.5	21.2	0.78	8.3
51.2	26.9	0.85	10.6
56.4	27.4	0.94	10.8

Table 3: Movement of an inchworm over time

	Slope	Intercept
Value:	11.57231441	0.2940447602

Standard Deviation:	0.50453	0.2927527941
	0.9831806447	0.456487491
	526.0977981	9
	109.6286955	1.875427465

Table 4: Slope and Intercept Calculations