

I Can Organize, Display Data, and Analyze the results.

5	-	4	-	3	-	2	-	1
POSSIBLE THINGS TO FIX (Summative Section)								
<input type="checkbox"/> Trials						<input type="checkbox"/> Improve Neatness		
<input type="checkbox"/> Averages						<input type="checkbox"/> Parts left undone		
<input type="checkbox"/> Accuracy						<input type="checkbox"/> CONCLUSION - (see back)		
<input type="checkbox"/> GRAPH – Title / Labels / Units / Scale / / Best Fit						<input type="checkbox"/> Q / H / DATA to SUPPORT <input type="checkbox"/> Inferences / Errors		

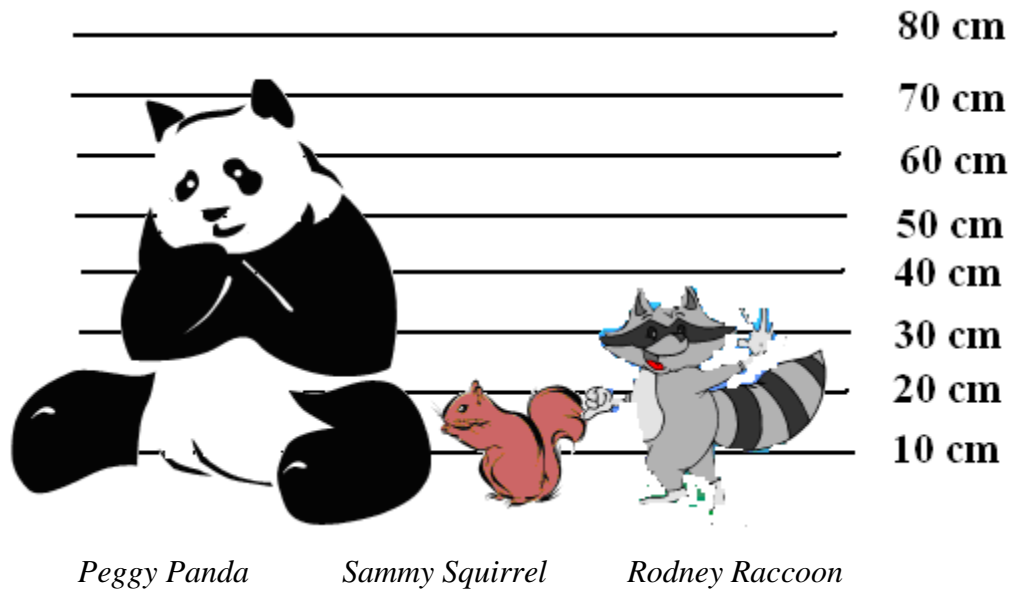


CSI Practicum Lab

Last night, an unidentified criminal attempted to break into Pablo the penguin’s pen at the zoo and kidnap him. Thankfully, Pablo has taken some self-defense classes, and he was able to defend himself with a vicious karate-chop to the nose of his attacker. As the attacker fled the scene, a single drop of blood fell from his nose and landed on a piece of construction paper lying on the floor of Pablo’s cage.

Pablo was so shaken from this experience that he could not identify his assailant; however a crew of suspicious looking animals were caught by security cameras in the area at the time of the crime. Your job is to see which of them is the likely suspect based on their height, and the size of the blood drop found in Pablo’s cage. Make sure that you are very careful in how you collect and present your data, or your findings won’t be admitted in court.

The suspects:



Case #53109: Pablo Penguin vs. west side critter gang

Abstract:

You are going to drop 'blood' from various heights and measure the splash diameter.

Procedures:

1. Put plain paper on floor
2. Using a meter stick to carefully measure your drop height and release one drop of water onto the paper.
3. Drop water from 1, 5, 10, 20, 30, 40, 50, 60, 70, 80, 90, 100, 150, 200 cm.
4. Do 5 trials
5. Measure the diameter of the splash *immediately* after impact using a ruler (make sure you use centimeters.) Measure the solid circle, not the splash trails.
6. Calculate the average drop diameter for each drop height.
7. Very neatly and carefully, graph the results.
8. Compare it to the blood drop at the crime scene. Show this on your graph.

Independent Variable:

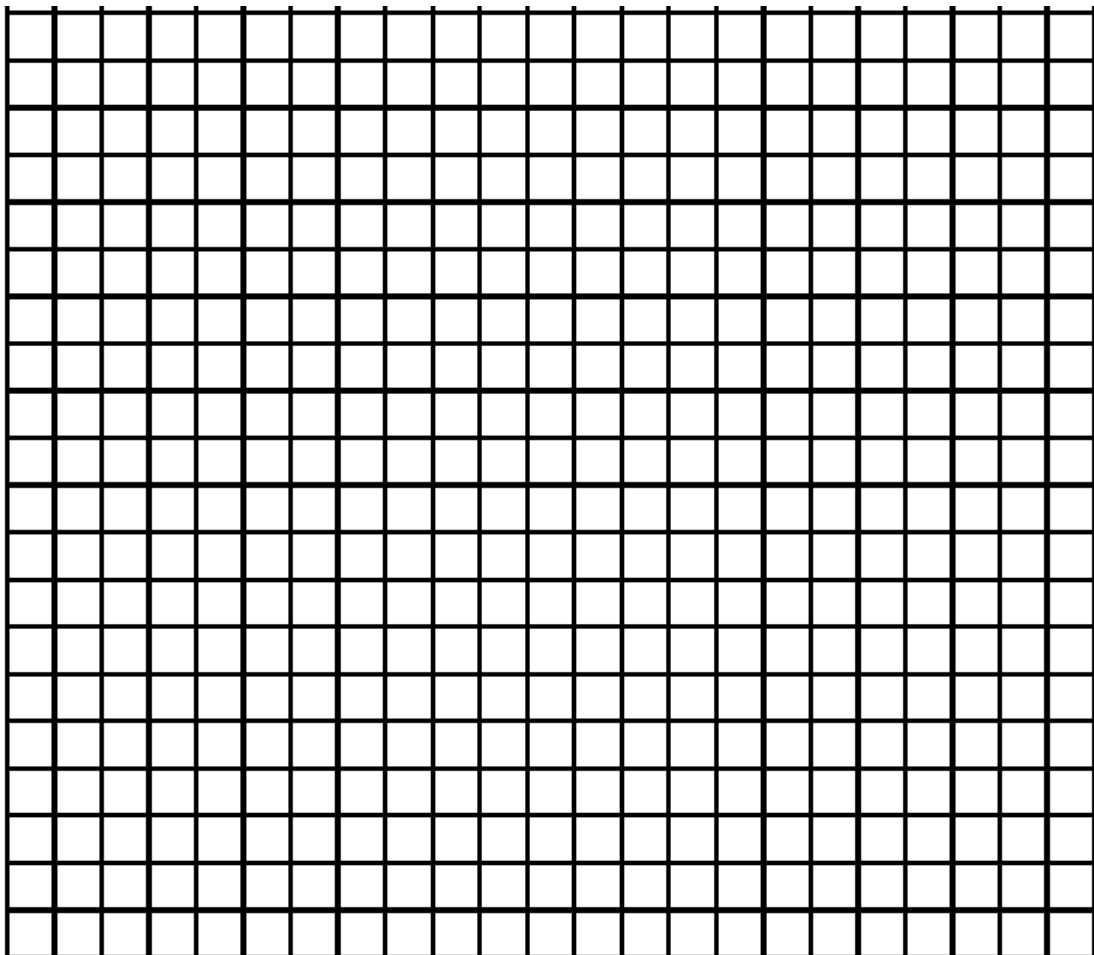
Dependent Variable:

Research Question:

Hypothesis (If, Then, Because)

Why

Title:



CONCLUSION:

Write in complete sentences as if the question was not there. Your answers should read like a paragraph

Question	Answer
1) Restate your Hypothesis	1) My original hypothesis was,
2) State if your data supports or does not support your original hypothesis (circle does or does not to the right.	2) You can see this does/does not/partially does (circle one) support my hypothesis.
3) State the rate and trend of your graph	3)
4) Give data to support your above rate and trend (3 data points)	4) For example,
5) State 3 sources of error and how it might have affected the data.	6)
6) Who committed the crime and how do you know?	7)
7) Infer why you think the splash diameter levels off on you graph instead of continuing to increase.	8)

Make Up Data

Case #53109: Pablo Penguin vs. west side critter gang

Data Table 1

Blood height vs. Diameter

Blood Height (cm)	Diameter (cm)					Avg
	T1	T2	T3	T4	T5	
1	0.8	0.8	0.7	0.7		0.85
5	0.7	1.0	1.0	1.0		.9
10	1.2	1.4	1.3	1.3		
20	1.4	1.5	1.4	1.5		
30	1.5	1.6	1.5	1.5		
40	1.9	1.9	1.8	1.8		
50	1.5	2.0	2.0	1.9		
60	2.0	2.1	2.1	2.1		
70	2.1	2.2	1.9	2.1		
80	2.2	2.1	2.2	2.2		
90	2.0	2.0	2.1	2.0		
100	1.8	2.2	2.0	2.4		
150	2.4	2.2	2.3	2.3		
200	2.5	2.5	2.5	2.4		
Crime Scene						

