Could You Please Stand Still, Again?!!!

Student Data Page 2G

Group Members:

Balancer _____

Timekeeper _____

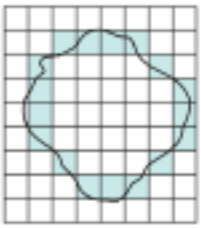
Measurer _____

Reader _____

Hypothesis: _____

_____

I. Fill in the data table below by **counting the number of squares that were touched** by the water-based marker while performing each different task. **Be sure to count every single marked square. Even if a small corner of the square is touched, it must be counted**. Do this for both **"control"** and **"test"** assessments.



II. You will now use the ***Unit Square Grid*** to estimate the area of your stabilograms.

a. Each square in the grid has an area of 1 cm^2 .

b. ***Estimate*** the area of your stabilogram by laying the ***Unit Square Grid*** over the stabilogram. See ***Figure 1 Estimating Area of Stabilogram Using Unit Square Grid***.

c. Now count the number of **whole** squares within the boundary of your stabilogram. Write this number down in the ***Stabilogram Data Table*** below.

d. Now, go back and estimate the area included in the partial squares within your stabilogram boundary. If 1/2 of a square is included, that represents 1/2 cm^2. If 1/4 square is included, that area is 1/4 cm^2 and so on.

e. Add all these partial squares to your number of full squares. Be sure to keep up with all of the fractions. Write this number down in the ***Stabilogram Data Table*** below.

f. When everyone in your group has completed estimating the area of their stabilograms, record the result in the ***Stabilogram Data Table*** and go to step III.

Stabilogram Data Table: The Effect of Various Tasks on Balance

Assessment	Number of Whole Squares on the Stabilogram	Number of Partial Squares on the Stabilogram	Total Estimated Area of Stabilogram (cm^2)
Control Stabilogram			
Test Stabilogram			

III. Making your Graph

a. You will now construct a ***double*** bar graph of the data from your stabilograms. This bar graph will allow you to compare the Control Stabilogram to the Test Stabilogram.

b. The graph must have a complete title, must have both axes labeled and must indicate the units of measurement used. (Each square on the unit grid is 1 cm, so the units used to measure the area will be cm^2).

c. You will construct a bar graph and plot the data for the two Stabilograms in the graph paper provided below. Divide the X axis into two equal sections. Label the first ***"Control"***, the second ***"Test"***.

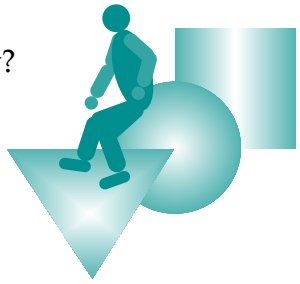
d. On your graph, use one color marker for the ***"Control"*** and a different color for the ***"Test"***. Be sure to include a legend explaining the color coding.

Title _____

Axis Label _____

Axis Label _____

Analysis:



1. In which assessment was your group member's balance the best? Why?

2. In which assessment was your group member's balance the worst? Why?

3. What observations did you make while conducting the experiment that would indicate that the balancer had good balance?

4. What unexpected observation(s) did you make?

5. How much did the variable you applied affect balance? Do you think this difference is important? Why?

6. Was your hypothesis correct? Explain why or why not.

Conclusion: After completion of lab, write a conclusion explaining if you accept or reject the original hypothesis and *WHY*?