Name: _____ Date: _____ Class: _____

Gait Analysis Activity Assessment

Answer <u>one</u> of the following questions in complete sentences. (Circle the # of the one you choose.)
1. What is data analysis?
2. How can a predictive model be developed and used to interpret new data?
3. What are some limitations on the reliability of a model constructed by analyzing data?

Complete the following performance assessment.
The following Gait Signature Metric (GSM) values were calculated for a group of human subjects.

	Adult 1	Adult 2	Adult 3	Child 1	Child 2	Child 3
GSM 1	3.35	4.46	1.24	3.76	5.97	2.08
GSM 2	1.78	1.63	1.43	4.39	2.89	2.16

4. Which GSM value is likely to yield a more reliable model for predicting whether a new subject is an adult or child? Justify your answer.

5. Analyze the data in the table to construct a model for predicting whether a new subject is an adult or a child. Show your work and justify your methodology.

The following Gait Signature Metric (GM) values were calculated for two new subjects:

	New Subject 1	New Subject 2
GSM 1	2.39	1.83
GSM 2	1.49	2.10

6. Use your model (from question 5) to predict whether each new subject is an adult or a child. Explain your reasoning, including an assessment of the reliability of your prediction.