

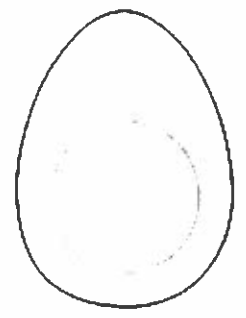
Name _____

Period _____

Digestion Graph

A scientist performed an experiment to determine the amount of time needed to digest protein. He placed small pieces of hard-boiled egg white (a protein) in a test tube containing hydrochloric acid, water, and the enzyme pepsin. He measured the rate at which the egg white was digested over a 24-hour period and recorded it in the table below.

Rate Of Protein Digestion



Time Elapsed (Hours)	% of egg white digested
2	9
4	18
6	21
8	25
10	30
12	40
14	51
16	70
18	76
20	85
22	86
24	88

Create a graph on the following page to represent this data. Be sure to follow all of the rules for graphing discussed earlier in the year including:

- *Title
- *Axis labeled and numbered consistently
- *Points plotted accurately and connected using a straight edge.

After you have completed your graph, answer the questions on the back of this page using complete sentences.

Answer the following questions using complete sentences.

1. How long did it take to digest half of the protein in the egg? _____

2. During which 4 hour period did the most digestion take place? _____

3. Is this experiment replicating mechanical or chemical digestion? _____

4. What organ of the digestive system does the test tube represent? _____

5. Food typically remains in the stomach for 4-5 hours. In which organ would you assume that 100% of the egg would be digested? _____

6. Imagine the scientist repeated this experiment with a piece of fat taken from meat. Do you think the scientist would have gotten the same results? Explain your answer.

