

**Procedure: Part One (Graphing):**

1. Graph the data.

1. Plot all four points in different colors and include a key identifying each plot. (leave space at the bottom of your graph!)
2. Using your book (page 397) UNDERNEATH your graph draw a fifth line indicating the thickness of the endometrial lining during the menstrual cycle (this can be more free-hand because there are no numbers to plot)
3. Label the four phases of the menstrual cycle using the correct days on the Y-axis (refer to page 397)

2. Answer the questions that follow using your knowledge of the menstrual cycle and your information on the graph you will construct.

**Conclusion Questions:**

Answer all questions on a separate sheet of paper:

1. State the role in the menstrual cycle of the following hormones. Include the organ of origin, target organ and effects of each:

a. FSH

b. LH

c. Estrogen

d. Progesterone

2. At what day(s) in the cycle are estrogen levels the highest? Why is this the case?

3. At what day(s) in the cycle are LH levels the highest? Why is this the case?

4. How does the increase in estrogen level correspond to the thickness of the uterine lining (endometrium)?

5. What happens to the thickness of the uterine lining when the level of progesterone reaches its highest levels?

6. Explain what events are triggered by the peak in LH.

7. Why is it logical for the level of FSH to fall greatly following ovulation?

8. Explain why it makes sense that the levels of estrogen and progesterone are low in the blood of a female during menstruation.