Name_____

Consider the graph below:
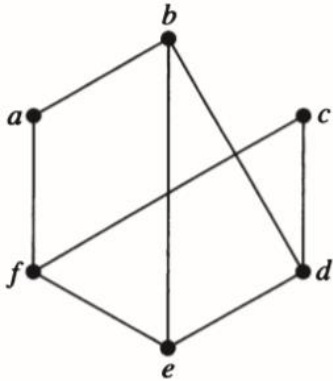
1) Does the graph contain an Euler Circuit or an Euler Path? Explain how you know. Name the appropriate theorem in your explanation. If a path or a circuit exist, name one.
2) Does the graph contain a Hamilton Circuit or a Hamilton Path? Explain how you know. Name the appropriate theorem in your explanation.
3) What is the chromatic number of this graph? Give the graph coloring that justifies this answer.
4) If a,b, c, d, e, f are courses and two courses are connected by an edge if they share students, what is the smallest number of time slots you need to use to schedule all the courses so that no students will be required to be in 2 places at once? List the courses that should be assigned to each time slot.