

Place your name on the back of this sheet of paper and nowhere else. Staple your answers face up on the front of this sheet of paper. Failure to follow these directions will cost you 10 points. Your assignment will be typed, except graphs can be drawn by hand and mathematical equations can be done by hand. Failure to type it will cost you 10 points. If you use double-sided printing or print on the back of scrap paper, I will give you one additional point.

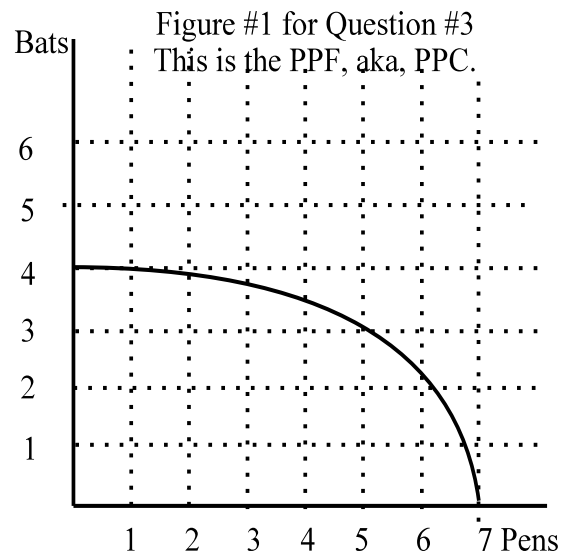
1) (20 points) Which part of my web page, <http://www.WCsaplárJr.info> do you think will be most helpful? Why? Is anything missing that you would like to see? What is the URL for the first exam from this class during the last semester it was taught? Suppose you were a sophomore Managerial Economics major, then what courses does the Economics Program suggest you be taking this semester? According to the boxes in yellow on my main page, which of the 25 most requested skills on LinkedIn are taught to our Economics majors?

2) **Explain** each answer including a typed short description of how you reached the conclusion and **show all mathematical work.** *Only for this question, you can draw directly on this graph,* but type the description of what you did and show all work on the answer sheet.

A) (5 points) What is the value of bats when there are 6 pens?

B) (10 points) What is the approximate slope when there are 2 pens?

C) (10 points) You will soon find out that on this graph, the absolute value of the slope is the opportunity costs of the pen at that point. What is the opportunity costs of the 6<sup>th</sup> pen?



3) (20 points) On a graph on your answer sheet, (not the graph above) draw a line through points (0, 2) and (3, 8). Then find the slope of the line. Explain what you did.

4) (20 points) On a new graph, plot the line  $Y = -\frac{2}{3}X + 4$ . What are the slope, Y-intercept, and X-intercept? Briefly explain how you found each answer.

5) (15 points) According to Forbes, there is an equation: Capacity + Competency = Sustainable Performance. Let us assume that capacity = 3. Plot sustainable performance (P) as a function of competency (C) for values of C from 0 to 10. Briefly explain how you got the graph.

<https://www.forbes.com/sites/forbescoachescouncil/2021/08/19/using-the-performance-equation-to-solve-for-back-to-work-stressors/?sh=2efc9c5c5281>

**If you have problems with this assignment, I recommend that you drop this course and take it after you have passed College Algebra.**