Write your name on the cover of the test booklet and nowhere else. Enclose this sheet with the booklet. Failure to follow these directions will cost you 1 point. The test has 100 points (to be scaled up to 160 points) and is scheduled to take 50 minutes. Therefore, expect to spend 1 minute for every 2 points. For example, a 12-point question should take 6 minutes. I cannot give extra time because some students have a class after your class. **Except for Question #1, I will not grade what is written on this sheet.**

PPF

1) (12 points) For this question, you can draw directly on the graph. **However, do all calculations and explanations in the bluebook.** Answer EITHER Part A OR Part B.
A) Approximately, what is the opportunity costs of the 4th coat? Show all work in the bluebook and briefly explain how you found it.
B) Approximately, what is the opportunity costs of the 9th hat? Show all work in the bluebook and briefly explain how you found it.

2) (12 points) Answer EITHER Part A OR Part B.
A) "Economists use models to explain the economy." What does that statement mean? Give an example in your explanation.
B) Draw the line $Y = 9 - 3X$. Find the Y-intercept, X-intercept, and slope. BRIEFLY state what you did.
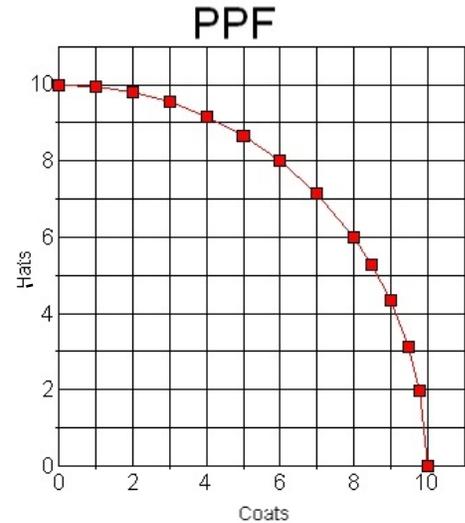
3) (14 points) Answer EITHER Part A OR Part B.
A) Do rich people or poor people clip coupons more? Explain your logic using terminology from economics.
B) I believe that most students go to college within a four hour drive of their house. Use terminology from economics to explain why this is true.

4) (18 points) Answer EITHER Part A OR Part B.
A) Draw the PPF for doors and cars. Illustrate the effects of an earthquake which destroys a lot of buildings. Explain why the curve moved as drawn.
B) Draw the PPF for smart phones and hats. Illustrate the effects of an improved computer chip. Explain why the curve moved as drawn.

5) (20 points) Draw the supply and demand for electric heaters. Illustrate the effects of EITHER the event in Part A OR the event in Part B. Explain why the curve(s) moved as drawn. What happens to the equilibrium price and quantity?
A) The workers at the factory making the heaters get a pay raise.
B) Tomorrow night it is supposed to be well below 0°F. (That is the actual forecast.)

6) (24 points) Answer EITHER Part A OR Part B.
A) Draw a supply and demand diagram for cars. Draw a quota on cars which affects the market. What happens to the price and quantity sold? Are consumers or producers definitely hurt? Explain your logic. For the other group, they may be helped and may be hurt. Explain how they are both helped and hurt.
B) Draw the supply and demand for picture frames. Illustrate the effects of an increase in the price of car windows. Explain why the curve(s) moved as drawn. What happens to the price and quantity of picture frames sold? Show the before and after price and quantities on the graph.