Second Exam

Write all answers in your blue book and show all work there.
Return your exam in your blue book.

18 pts.
1. a) Draw a well-labeled diagram where the compensated demand is less elastic than
the uncompensated demand.
b) Now draw a well-labeled indifference curve diagram that shows income and
substitution effects for a price decrease. Do the effects that you show make the
compensated demand is less elastic than the uncompensated demand? Why?
c) Is good X in your diagrams normal or inferior. Why?

10 pts.
2. An incumbent senator has spent 5 million more than ever before on the campaign and
still trails in the race. More can be spent, but one advisor says that too much has been
spent already. Should the senator give up? Address the issue in terms of sunk cost,
variable cost and benefit.

18 pts.
3) For this problem $Q = L^{.5}K^{1.5}$.
a) Describe the returns to scale and the degree of homogeniety.
b) If L = 9 and K = 25, what is the MP_K?
c) If L = 9 and K = 25, what is the MP_L?
d) If L = 9 and K = 25, what is the MRTS?
e) If L = 9 and K = 25 and P_L= 5 and P_K = 10, is cost minimized? Why?

18 pts.
4) In an effort to please his constituents a Congressman gets a large number of new
apartments built in his district at government expense. Use a well-labeled two-frame
diagram to show the effect of this additional supply in a constant cost competitive
industry. Be sure to show the effect on price, quantity and profit the short run and the
long run. Will anyone be displeased by the new apartments? Who? Why?

18 pts.
5 a) Use a well-labeled diagram to show a price ceiling that makes a difference.
b) Identify areas of DWL in your diagram and explain the nature of those losses.
c) Are those losses likely to be larger or smaller in the long run. Why?

18 pts.
6.   If $U=XY^2$ and I = X + 2Y = 100, find the utility maximizing mix of X and Y.

I have neither given nor received unfair aid on this test nor am I aware of anyone else
who has.

_____