

# Download File PDF Microeconomics 213 Problem Set Answers

#Jenny



Finally I get this ebook, thanks for all these I can get now!

#Rio



Cool! I'am really happy

#Markus Jensen



I did not think that this would work, my best friend showed me this website, and it does! I get my most wanted eBook

#Hun Tsu



wtf this great ebook for free?!

#Che Salsa



My friends are so mad that they do not know how I have all the high quality ebook which they do not!

#Diego Butler



so many fake sites. this is the first one which worked! Many thanks

GRADUATE MICROECONOMICS I  
PROBLEM SET 4  
Fall 2013

Prof. Georg Kirchsteiger  
T.A. Ester Mirera and Alessandro de Chiera

1. There are three goods. Goods 1 and 2 are inputs. The third, with amount  $q$ , is the output. Output can be produced by two techniques that can be operated simultaneously or separately. The techniques are not necessarily linear: The first (respectively, second) technique uses only the first (respectively, second) input. Thus the first (respectively, the second) technique is completely specified by  $\alpha_1(\alpha_2)$  [respectively,  $\alpha_2(\alpha_1)$ ], the minimal amount of input one (respectively, two) sufficient to produce the amount of output  $q$  (respectively,  $q_2$ ). The two functions  $\alpha_1(\cdot)$  and  $\alpha_2(\cdot)$  are increasing and  $\alpha_1(0) = \alpha_2(0) = 0$ .

- Describe the three-dimensional production set associated with these two techniques. Assume free disposal.
- Give sufficient conditions on  $\alpha_1(\cdot)$ ,  $\alpha_2(\cdot)$  for the production set to display additivity.
- Suppose that input prices are  $w_1$  and  $w_2$ . Write the first order conditions for profit maximization and interpret. Under which conditions on  $\alpha_1(\cdot)$ ,  $\alpha_2(\cdot)$  will the necessary conditions be sufficient?
- Show that if  $\alpha_1(\cdot)$  and  $\alpha_2(\cdot)$  are strictly concave, then a cost-minimizing plan cannot involve the simultaneous use of the two techniques. Interpret the meaning of the concavity requirement. Show the isocosts in the two-dimensional space of input usage.

2. A price-taking firm producing a single product according to the technology  $q = f(x_1, \dots, x_{L-1})$  faces prices  $p$  for its output and  $w_1, \dots, w_{L-1}$  for each of its inputs. Assume that  $f(\cdot)$  is strictly concave and increasing, and that  $\partial^2 f(x_1)/\partial x_1^2 < 0$  for

1

[Download PDF version of :](#)  
**Microeconomics 213 Problem Set Answers**