

INTRODUCTION TO ECONOMICS
BUSINESS ADMINISTRATION DEGREE - YEAR 2016

PRACTICE SHEET 2

1. Suppose it is strictly necessary to use two production factors, labour (L) and capital (K), in order to produce a commodity (X). The available production techniques are the following:

Technique	X	L	K
A	20	4	8
B	20	8	6
C	20	3	7
D	20	8	1

Which of the previous ones are efficient or inefficient?

2. Consider a production function in the short-run using labour as the variable factor. The marginal product of labour is decreasing and equals 2 when the company hires 10 workers. Discuss the following statements:
- (a) When the company uses 13 workers efficiently, it gets fewer commodities than when it uses 10.
 - (b) If the company wants to increase the production in one unit, it will need more workers if it is producing 33 commodities than if it is producing 39.
 - (c) If the company employed 12 workers, the marginal product of labour would be less than 2.
3. (Based on KWG) In the ancient country of Roma, only two goods, spaghetti and meatballs, are produced. There are two tribes in Roma, the Tivoli and the Frivoli. By themselves, the Tivoli each month can produce either 30 pounds of spaghetti and no meatballs, or 50 pounds of meatballs and no spaghetti, or any linear combination in between. The Frivoli, by themselves, each month can produce 40 pounds of spaghetti and no meatballs, or 30 pounds of meatballs and no spaghetti, or any linear combination in between.
- (a) Draw one diagram showing the monthly production possibility frontier for the Tivoli and another showing the monthly production possibility frontier for the Frivoli. Show how you calculated them.
 - (b) What is the opportunity cost of producing 1 pound of spaghetti for both, the Tivoli and the Frivoli? And 1 pound of meatballs?
 - (c) Which tribe has the comparative advantage in spaghetti production? In meatball production?
 - (d) In A.D. 100 the Frivoli discover a new technique for making meatballs that doubles the quantity of meatballs they can produce each month. Draw the new monthly production possibility frontier for the Frivoli.

- (e) After the innovation, which tribe now has an absolute advantage in producing meatballs? In producing spaghetti? Which has the comparative advantage in meatball production? In spaghetti production?