

ECO 610  
Fall 2016  
Problem Set #3

1. Labor and capital are used to produce widgets according to the production table below:

		<b>Labor Input</b>				
		<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
<b>Capital Input</b>	<b>1</b>	20	40	55	65	75
	<b>2</b>	40	60	75	85	90
	<b>3</b>	55	75	90	100	105
	<b>4</b>	65	85	100	110	115
	<b>5</b>	75	90	105	115	120

- a) Draw the  $TP_L$  curve when  $K$  is fixed at 2 in the short run.
- b) Does this production process exhibit diminishing returns? Pick a set of combinations of inputs to illustrate and explain your answer.
- c) Does this production function exhibit increasing, constant, or decreasing returns to scale? Pick a set of combinations of inputs to illustrate and explain your answer.