CONCEPT: THE PRODUCTION FUNCTION AND DIMINISHING RETURNS

● The ***production function*** relates the amount of inputs (i.e. workers) to the amount of output (i.e. quantity)

□ ***Marginal Product of Labor*** – increase in output from adding one more worker

EXAMPLE: A local pizza shop leases two pizza ovens for a total daily cost of $100. The pizza company is deciding how many employees to hire at a wage of $80 per day. Assume the cost of ingredients is negligible. Complete the table below.

Number of Pizza Ovens	Number of Workers	Total Quantity of Pizzas	Marginal Product of Labor	Fixed Costs (Costs of Ovens)	Variable Costs (Costs of Workers)	Total Cost	Average Cost per Pizza
2	0	0					
2	1	30					
2	2	80					
2	3	150					
2	4	180					
2	5	190					

□ The ***Law of Diminishing Returns*** states that adding more variable inputs (i.e. __________) to the same amount of fixed inputs (i.e. __________) will eventually cause the marginal product to decrease.