Intro to Costs and Production: Part 2 Production Functions, Marginal Product, and Costs

Short Run versus Long Run?

Total Product = Quantity of Output

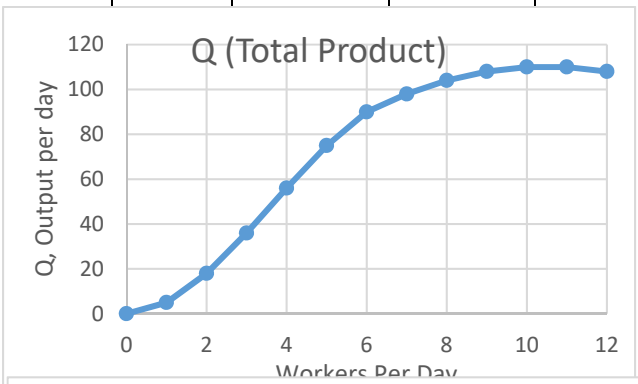
Marginal Product of Labor = $\Delta Q/\Delta L$ = Rise/Run = Slope of Total Product

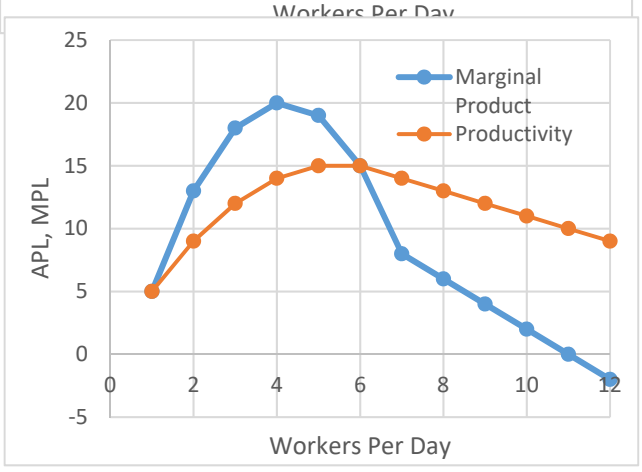
Increasing Marginal Returns, Constant Marginal Returns, Diminishing Marginal Returns, Negative Marginal Returns

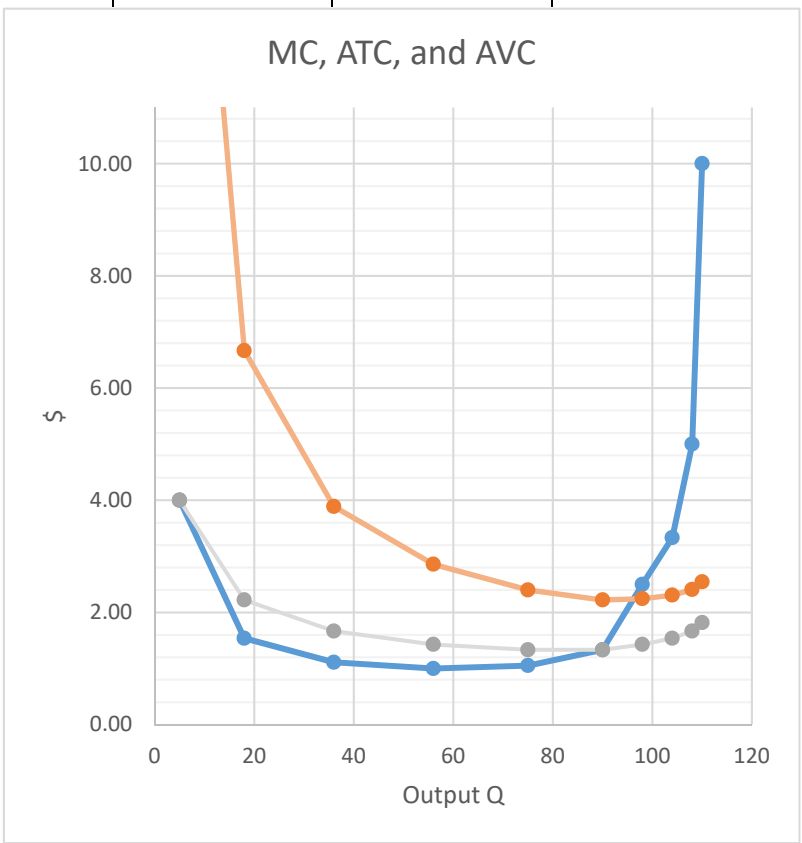
Law of Diminishing (Marginal) Returns

Average Product of Labor (Productivity)

Kapital fixed in the short run	**Labor**	**Q (Total Product)**	**Marginal Product of Labor =ΔQ/ΔL**	**Average Product (Productivity) =Q/L**	**Total Cost if P_K=\$10, P_L=\$20 P_K*K+P_L*L**	**MC= ΔTC/ΔQ *Marginal* is Always a Slope!**	**Average Total Cost (TC/Q) "Cost Per Unit"**
8	0	0					
8	1	5					
8	2	18					
8	3	36					
8	4	56					
8	5	75					
8	6	90					
8	7	98					
8	8	104					
8	9	108					
8	10	110					
8	11	110					
8	12	108					
8	13	104					







Fixed or Variable Cost?

Property Taxes | Hourly Wages | Electricity

Business License | Cost of shipping your product by train

Fire Insurance | Normal Profit | Salaried Employee