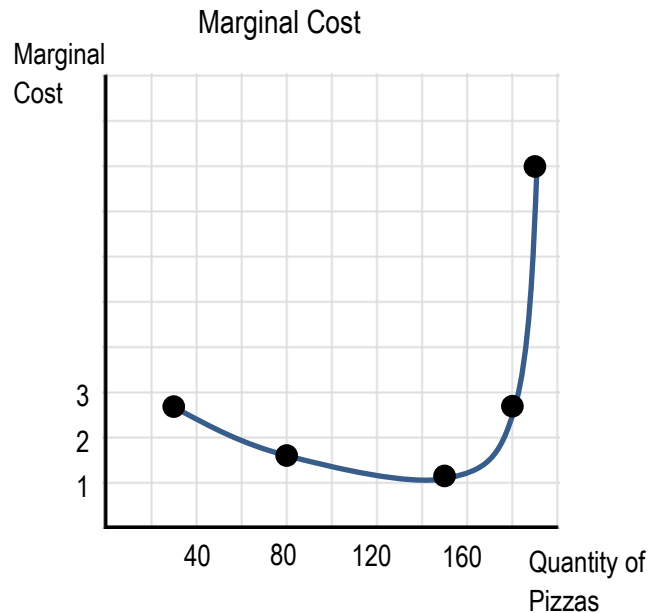


ONCEPT: MARGINAL COST

- **Marginal Cost** is the additional cost from producing one more unit

$$\text{Marginal Cost} = \frac{\text{Change in Total Cost}}{\text{Change in Quantity}} = \frac{\Delta TC}{\Delta Q}$$



Total Cost	ΔTC	Total Quantity	ΔQ	Marginal Cost per Pizza
\$100		0		
\$180		30		
\$260		80		
\$340		150		
\$420		180		
\$500		190		

Number of Workers	Marginal Product of Labor	Marginal Cost per Pizza
0	-	
1	30	
2	50	
3	70	
4	30	
5	10	

- When marginal product of labor is increasing, marginal cost of output is _____
- When marginal product of labor is decreasing, marginal cost of output is _____
- The marginal cost initially _____ and then _____, forming a U-shape.

PRACTICE: Donny Saltlife shapes surfboards in Hawaii. He leases two production machines, paying \$300 each per week. He cannot increase the number of machines he leases in his contract. He can hire as many workers as he wants at a cost of \$400 per week. These are his only two inputs to produce surfboards. Fill in the remaining columns in the table below.

Number of Workers	Quantity of Surfboards	Fixed Cost	Variable Cost	Total Cost	Average Total Cost	Marginal Cost
0	0					
1	8					
2	20					
3	25					
4	28					
5	30					

PRACTICE: A firm that sells headphones has the following average total cost schedule:

The company currently produces and sells 600 units. A desperate customer calls and offers \$550 for a pair of headphones. Should the company accept the offer?

Quantity	Average Total Cost
600	\$300
601	\$301

- a) Yes, because the offer is above average total cost
- b) No, because the offer is above average total cost
- c) Yes, because the offer is above marginal cost
- d) No, because the offer is below marginal cost