1. \( p \) = price (per unit quantity).
   \( q \) = quantity (per unit time period) demanded or produced.

2. \( C \) or \( TC \) = total cost (of production and marketing, per unit time).
   \( MC \) = marginal cost = \( \frac{dC}{dq} \).
   \( TFC \) = total fixed cost (or overhead) = cost when \( q = 0 \).
   \( TVC \) = total variable cost.
   \( TC = TFC + TVC \).
   \( AFC \) or \( AC \) = average cost (per unit output) = \( \frac{C}{q} \).
   \( AFC \) = average fixed cost = \( \frac{TFC}{q} \).
   \( AVC \) = average variable cost = \( \frac{TVC}{q} \).

3. \( R \) or \( TR \) = total revenue (per unit time) = \( pq \) = (price per unit)\(# of units sold per unit time\).
   \( MR \) = marginal revenue = \( \frac{dR}{dq} \).
   \( MR = p + q \frac{dp}{dq} = p(1 + 1/\eta) \).
   \( AR \) = average revenue (per unit of output) = \( \frac{R}{q} = \frac{pq}{q} = p \).

4. \( \Pi \) = profit = \( R - C = pq - C \).
   \( M\Pi \) = marginal profit = \( \frac{d\Pi}{dq} = MR - MC \).

5. \( \eta \) = elasticity = \( \lim_{\Delta p \to 0} \frac{\Delta q/q}{\Delta p/p} = \frac{p \frac{dq}{q} dp}{q \frac{dp}{dq}} = \left( \frac{p}{q} \right) / \left( \frac{dp}{dq} \right) \).

6. Profit maximizing behavior: A firm maximizes profit by increasing output \( q \) as long as \( MR > MC \) until an output level where \( MR = MC \) is reached, and increasing output no further (so as to avoid having \( MR < MC \)), provided that \( AR \geq AVC \) (\( p \geq AVC \)) so that it is worthwhile to produce more than 0 in the first place.