Total Cost (TC)
To produce, the firm hires factors of production that it must pay its costs. The total cost is the cost of all the factors of production the firm uses. In the short run, the firm has some fixed and some variable factors of production. this means that total costs increases because of the increase in variable cost (hiring more labor will increase costs).

Total Fixed Costs (TFC)
The firm must employ all factors of production, if the quantities of some factors doesn't change with the quantity of output then the cost of those factors of production will be fixed.

Total variable costs (TVC)
In order to increase production, the firm will increase its variable factors of production; this means that the firm will increase total variable cost to increase production.

Total cost is the sum of total fixed cost and total variable cost.
TC = TFC + TVC
TFC = TC – TVC
TVC = TC – TFC

Marginal Cost (MC)
A firm's marginal cost is the change in total cost that results from increase in total product by one unit. In calculation, it is the change in total cost divided by the change in total product. Remember that total product will increase because of an increase in the variable factor of production (labor) on the fixed factor of production (capital), so the total cost will change because of the change in labor and not capital. Each additional worker receives the same wage rate but increases output with a different amount, this means that when marginal product is increasing the marginal cost is decreasing. When marginal product reaches a maximum then the marginal cost reaches a minimum. Finally, when marginal product decreases then the marginal cost will be increasing. They are the mirror image of each other and marginal cost is U shaped.

Perfect Competition
Firms in perfect competition are price takers which means that when a single firm's output decision cannot affect the market price. Thus the selling price for any output level will not change and is taken as given.

Total Revenue (TR)
Total revenue is equal to the price multiplied by the quantity sold. Because each unit is sold with the same price, this means that there is a positive and linear relationship between the perfect competitive firm's total revenue and total output.

Marginal Revenue (MR)
Marginal revenue is the change in total revenue that results from a one unit increase in quantity sold. It is calculated by the change in total revenue divided by the change in total