On the other hand, if any unit adds more to cost than it does to revenue (i.e. MC>MR) then producing and selling that unit will decrease profits i.e. the firm should contract production.

Thus it follows that a firm will leave output unaltered if the last unit produced adds the same amount to costs as it does to revenue.

Thus assuming that it is worthwhile for the firm to produce, it should produce output for which marginal revenue (MR) equals marginal cost (MC) i.e. where MR = MC.
Prices and Output Determination in the Short Run

The equilibrium price is determined in the market by the interaction of supply and demand.

The firm is a price taker and has to accept the ruling price as given and thus faces a perfectly elastic demand curve.

The demand curve facing the firm is labeled \( D = AR = MR \)

The firm produces where \( MC = MR \) and where \( MC \) is cutting \( MR \) from below.

The profit maximizing level of output is \( oq_1 \). At this level of output the equilibrium price \( OP_1 \) is equal to \( MC \).

The average cost (ATC) at output level \( Q_1 \) is \( Q_1B \). Total cost is given by ATC multiplied by quantity represented by the area under \( OQ_1BC \).

At the equilibrium level of output, the total revenue is represented by the area \( oP_1AQ \).

Thus the firm is earning revenue in excess of total cost represented by the area \( CP_1AB \) i.e. the firm is said to be earning super normal or abnormal profits.

The same equilibrium of the firm can be shown using total cost curve and revenue curves.
Long-Run Equilibrium

The key to long-run equilibrium under perfect competition is free entry and free exit.

In the short-run there are three possibilities: firms may be making profits, suffering losses or just breaking even.

If firms are just breaking even (making normal profits) are doing as well as they could do by investing their capital elsewhere because costs include the opportunity cost of capital.

Thus there will be no incentive for such firms to leave the industry.

If however, existing firms are earning revenues in excess of all costs, other firms will enter the industry to share in these profits.

The effect of new entrants on the supply curve is to shift the supply curve to the right and lower the equilibrium price.

If existing firms are suffering losses they will leave the industry because a better return can be obtained else where in the economy.

The effect of firms exiting the industry will shift the supply curve to the left and raise the equilibrium price for the remaining firms.

Thus in the long run perfectly competitive firm earns only normal profit.
Sources of Monopoly Power

The following are some sources of monopoly power:

Exclusive ownership and control of factor inputs e.g. raw materials. The monopolist may be the sole owner of a natural resource.

Unless new supplies of the resource are discovered, there will be no possibility of new forms entering the industry.

Patents rights. A monopoly may result from the holding of a patent on an invention or innovation.

A patent confers sole production rights for a given period on those who have invested in research developments to enable them to earn a return on their investment.

A copyright restricts the reproduction of printed or recorded material in a similar way.

Legal monopolies. In some cases the state creates a monopoly by law e.g. Kenya Railways Corporation.

In such a case, there are legal barriers that restrict rival firms from entering the industry.
Oligopoly

- Oligopoly is a market in which there are only few sellers.
- **Features:**
  - There is mutual interdependence between all firms in the industry.
  - Considerable barriers to entry;
  - Prices are normally very sticky or slow to change;
  - Firms are prone to collusion.
  - Firms in this market structure can earn supernormal profits even in the long run.
- The market is dominated by few large firms.
- Oligopolies can be divided into two categories:
  - i) Pure oligopolies produce homogenous products e.g. kerosene, cement industries.
  - ii) Differentiated oligopolies produce differentiated products. Examples include manufacturers of automobiles, monocycles, television sets, electrical appliances etc.
Non Price Competition
Under monopolistic competition firms may try to retain or increase its above normal profits by engaging in some form of non-price competition. Non-price competition refers to strategies adopted by producers to give their products a competitive advantage other than a price cut.
This might include advertising further expenditure on packaging to make the good appear more attractive to customers.

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<table>
<thead>
<tr>
<th>Type of market</th>
<th>No. of firms</th>
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<th>Nature of product</th>
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