Perfect Competition

The industry and firm graphs for a perfectly competitive industry show the market price of the good and the market/firm level of output.

The market price of the good is determined in the market. Once the market price is determined by the intersection of the supply and demand curves, the perfectly competitive firm takes that price as given (firms are price takers) and the firm's demand and marginal revenue curves are horizontal at the market price. Showing that the firm's price comes from the market is the purpose of asking for side-by-side graphs.

The firm maximizes profit by producing the level of output at which $MC = MR$. If $P > ATC$ at that level of output, the firm earns a profit. If $P < ATC$, the firm earns a loss. If $P = ATC$, the firm earns a normal profit.

In the long run, the firm will earn a normal profit due to the free entry and exit of firms in response to profits or losses. Note: we know the firm above is in the short run because there are fixed costs. Remember the shut-down rule: a firm continues to produce in the short run when $P > AVC$.