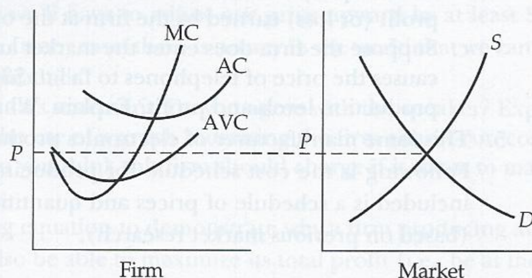
firms that protect their product with a patent.

PROBLEMS

For certain questions, consult Appendix 8A.

1. Following is the graphical representation of a short-run situation faced by a perfectly competitive firm. Is this a good market for this firm to be in? Explain. What do you expect will happen in the long run? Explain.



2. Indicate whether each of the following statements is true or false and explain why.
   a. A competitive firm that is incurring a loss should immediately cease operations.
   b. A pure monopoly does not have to worry about suffering losses because it has the power to set its prices at any level it desires.
   c. In the long run, firms operating in perfect competition and monopolistic competition will tend to earn normal profits.
   d. Assuming a linear demand curve, a firm that wants to maximize its revenue will charge a lower price than a firm that wants to maximize its profits.
   e. If $P >$ AVC, a firm's total fixed cost will be greater than its loss.
   f. When a firm is able to set its price, its price will always be less than its MR.
   g. A monopoly will always earn economic profit because it is able to set any price that it wants to.

3. Kelson Electronics, a manufacturer of VCRs, estimates the following relation between its marginal cost of production and monthly output:

$$MC = \$150 + 0.005Q$$

   a. What does this function imply about the effect of the law of diminishing returns on Kelson's short-run cost function?
   b. Calculate the marginal cost of production at 1,500, 2,000, and 3,500 units of output.
   c. Assume Kelson operates as a price taker in a competitive market. What is this firm's profit-maximizing level of output if the market price is \$175?
   d. Compute Kelson's short-run supply curve for its product.