Problem Set VIII

The perfectly competitive firm's long-run total cost curve and its short-run total cost curve for plant size $k = \bar{k}$ are shown in the following diagram:

1. Which of the two curves (the one labeled with 0, B and D, or the one labeled with A, B, and C) is the long-run curve and which is the short-run curve? Why?

2. What length in the diagram represents the firm's fixed cost with plant size $\bar{k}$? Why?

3. Is the firm's long run average cost larger, the same, or smaller than its short-run average cost with plant size $\bar{k}$ at outputs $x = 10$, $x = 30$, and $x = 60$? Why?

4. Is the firm's long run marginal cost larger, the same, or smaller than its short-run average cost with plant size $\bar{k}$ at output $x = 10$, $x = 30$, and $x = 60$? Why?