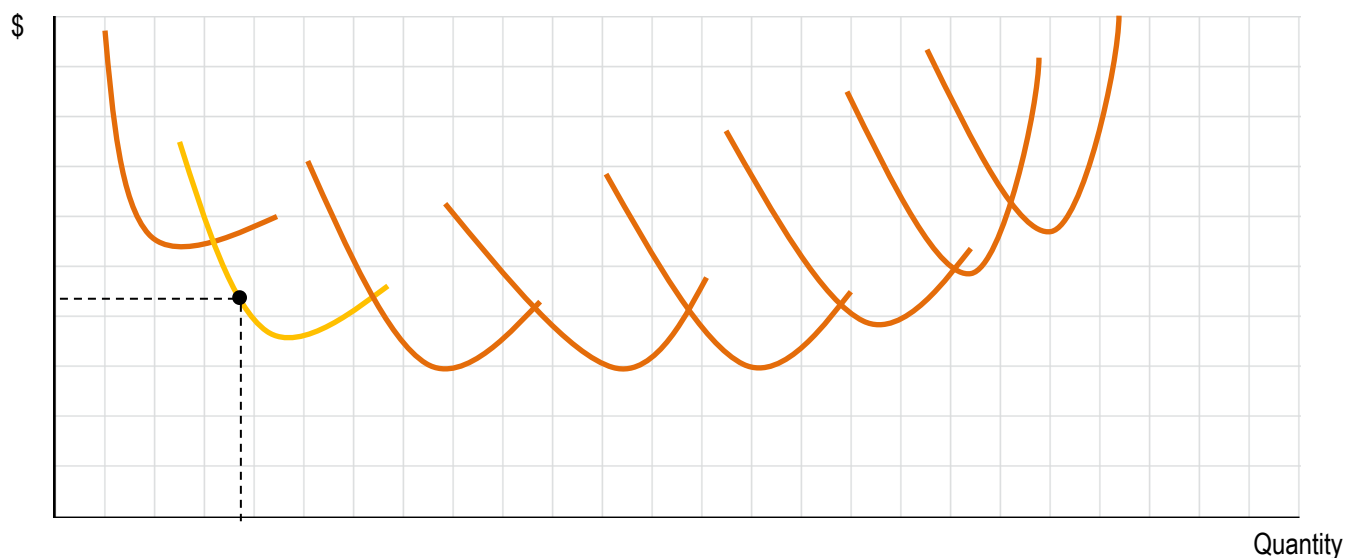


## CONCEPT: AVERAGE TOTAL COST – SHORT RUN AND LONG RUN

- In the **short run**, our fixed costs must remain fixed costs.
  - The firm is stuck with decisions it has made in the past.



- In the **long run**, \_\_\_\_\_ costs are variable costs.
  - The firm can reevaluate big decisions, such as factory size.



- **Economies of Scale** – where LR ATC \_\_\_\_\_ as quantity increases
  - Specialization
  - Costs may not increase as quickly as output
  - Large-Volume Machinery
- **Constant Returns to Scale** – where LR ATC \_\_\_\_\_ as quantity increases
  - **Minimum Efficient Scale** – the quantity where economies of scale end and constant returns begin
- **Diseconomies of Scale** – where LR ATC \_\_\_\_\_ as quantity increases
  - Too many levels of management
  - Coordination Problems

**PRACTICE:** A short-run production function assumes that

- a) The level of output is fixed
- b) The usage of at least one input is fixed
- c) All inputs are fixed inputs
- d) Both (a) and (b)
- e) Both (b) and (c)

**PRACTICE:** Which of the following is TRUE?

- a) A firm plans in the short run and operates in the long run
- b) In the long run, a firm can change all but one input
- c) In the long run, all inputs are variable
- d) In the short run, all inputs are fixed

**PRACTICE:** If a higher level of production allows workers to specialize in particular tasks, a firm will likely exhibit \_\_\_\_\_ and \_\_\_\_\_ average total cost.

- a) Economies of Scale; Falling
- b) Economies of Scale; Rising
- c) Diseconomies of Scale; Falling
- d) Diseconomies of Scale; Rising