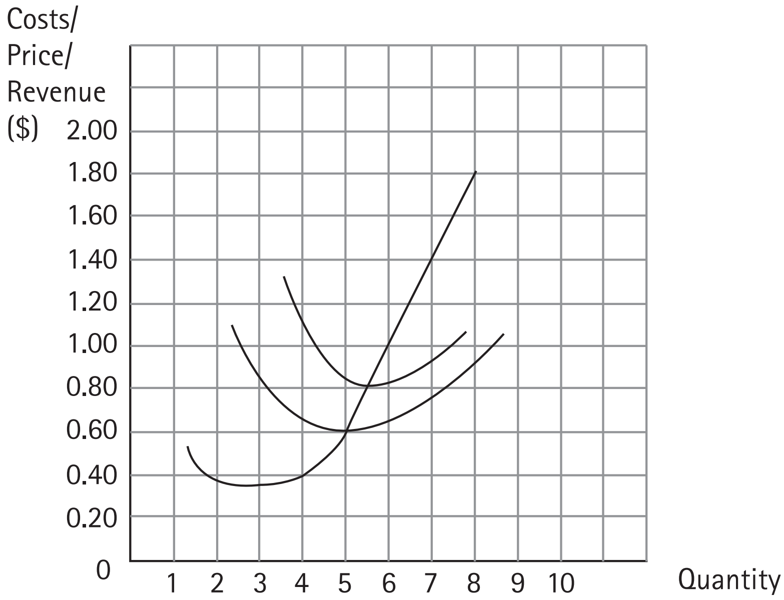
eLearneconomics: Break-even and shut-down (1)

Student response ______________________________

(a) Label the curves on the diagram.



(b) Give the value of

(i) Shutdown ____________________ **(ii)** Break-even ________________.

(c) What cost concept is represented by the vertical gap between AVC and AC? ________________

(d) Why does this gap narrow as output rises?

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(e) Which two cost curves are equal to the price at:

(i) shutdown point? ____________________ **(ii)** break-even point? ____________________.

(f) Write if the following statements are correct or incorrect.

(i) A firm's supply curve is equal to its AC curve. ________________

(ii) A firm's supply curve is equal to its MC curve above AVC. ________________

(iii) When revenue covers all economic costs it is at its shutdown. ________________

(iv) Break-even is when revenue covers variable costs only. ________________

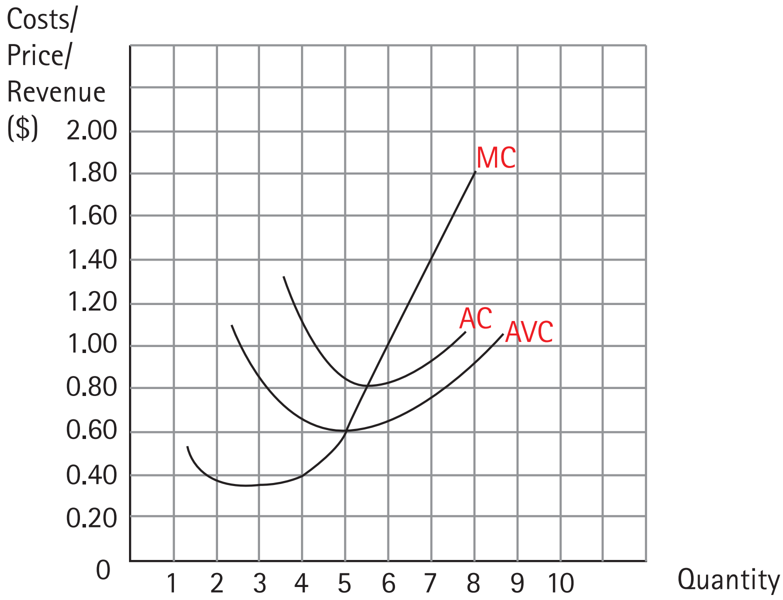
(v) If the firm has shut down, the firm will save paying variable costs by not operating but will still have to pay fixed costs. ________________

(vi) Break-even is when revenue covers all economic costs. ________________

eLearneconomics: Break-even and shut-down (1a)

Solution

(a) Label the curves on the diagram.



(b) Give the value of

(i) Shutdown $0.60 **(ii)** Break-even $0.80.

(c) What cost concept is represented by the vertical gap between AVC and AC? AFC

(d) Why does this gap narrow as output rises?

AFC declines with increasing output because the FC are spread over a greater number of units of output. Therefore because ATC = AFC + AVC, a higher proportion of TC will be made up of VC as output rises so the gap narrows.

(e) Which two cost curves are equal to the price at:

(i) shutdown point? MC and AVC **(ii)** break-even point? MC and AC.

(f) Write if the following statements are correct or incorrect.

(i) A firm's supply curve is equal to its AC curve. incorrect

(ii) A firm's supply curve is equal to its MC curve above AVC. correct

(iii) When revenue covers all economic costs it is at its shutdown. incorrect

(iv) Break-even is when revenue covers variable costs only. incorrect

(v) If the firm has shut down, the firm will save paying variable costs by not operating but will still have to pay fixed costs. correct

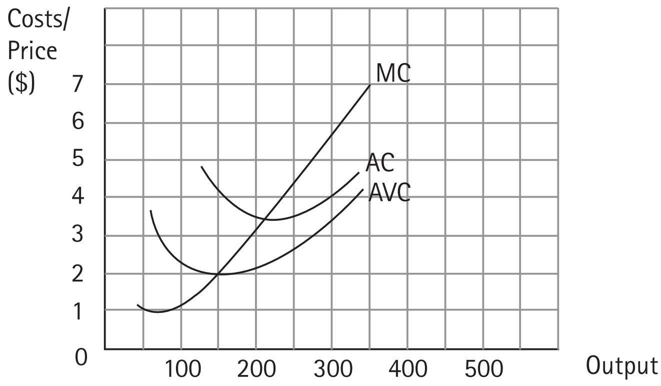
(vi) Break-even is when revenue covers all economic costs. correct

eLearneconomics: Break-even and shut-down (2)

Student response ______________________________

Use the diagram to answer the questions that follow.

Cost curves for an individual firm



(a) Complete the supply schedule using the graph.

Supply schedule	
Price in dollars	**Quantity supplied**
1.00	
3.00	
5.00	
7.00	

(b) Why does the marginal cost curve initially fall and then rise?

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(c) Define the following terms.

(i) Break-even: ______________________________

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(ii) Shutdown: ______________________________

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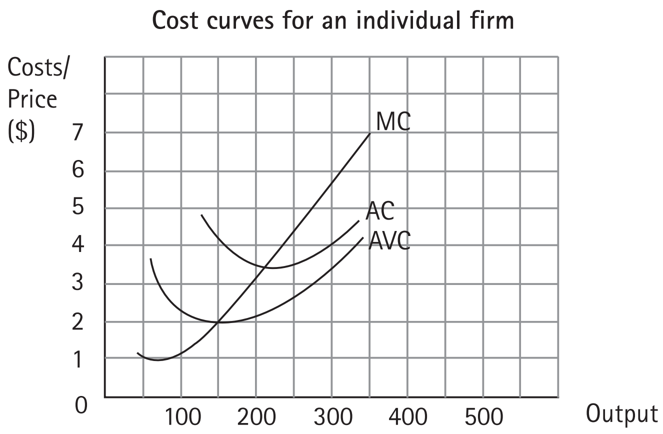
(d) Complete this statement.

If a firm ceases its operation it must still pay ______________ costs. If market price is above the level of average variable cost, it can cover its ______________ costs and still have something left over to pay its fixed costs, it may as well ______________ operating. If price falls below AVC, there is nothing left over to contribute to __________ costs and variable costs are not fully covered, then the firm should ______________.

eLearneconomics: Break-even and shut-down (2a)

Solution

Use the diagram to answer the questions that follow.



(a) Complete the supply schedule using the graph.

Supply schedule	
Price in dollars	**Quantity supplied**
1.00	zero
3.00	200
5.00	275
7.00	350

(b) Why does the marginal cost curve initially fall and then rise?

Initially increasing returns and the more efficient use of resources leads to falling MC but in the short run eventually diminishing returns will occur causing MC to increase.

(c) Define the following terms.

(i) Break-even: A price at which revenue covers all economic costs.

(ii) Shutdown: A price at which revenue only just covers variable costs.

(d) Complete this statement.

If a firm ceases its operation it must still pay fixed costs. If market price is above the level of average variable cost, it can cover its variable costs and still have something left over to pay its fixed costs, it may as well continue operating. If price falls below AVC, there is nothing left over to contribute to fixed costs and variable costs are not fully covered, then the firm should shut down.

eLearneconomics: Break-even and shut-down (3)

Student response

A firm's supply curve is the same as its marginal cost curve.

(a) Discuss this statement by:

(i) defining individual supply.

(ii) defining marginal cost.

(iii) explaining why marginal cost affects the quantity a producer is willing to supply.

(iv) explaining any difference that exists between the supply curve and the marginal cost curve of a firm.

eLearneconomics: Break-even and shut-down (3a)

Solution

A firm's supply curve is the same as its marginal cost curve.

(a) Discuss this statement by:

(i) defining individual supply.

Supply is the amount of a good/service producer's offer for sale at each price (ceteris paribus).

(ii) defining marginal cost.

Marginal cost is the addition to total cost resulting from the production of an extra unit of output.

(iii) explaining why marginal cost affects the quantity a producer is willing to supply.

A firm will only offer a good/service for sale if the price they receive covers the cost of producing it (i.e., the MC).

(iv) explaining any difference that exists between the supply curve and the marginal cost curve of a firm.

Supply = MC curve above the shutdown point, i.e., MC above P = minimum AVC in SR because there is no point in producing if revenue earned not sufficient to even cover additional costs of resources needed to produce output, **or** MC above P = minimum AVC in SR because losses will be reduced if shut down (stop producing) and only have to pay fixed costs, **or** MC above P = minimum AC in LR because there is no point in producing if earning sub-normal profit so the owner would be better off shifting their resources to their next best alternative.