**5** Which statement about factors of production is correct?

**A** In the short run all factors are fixed; in the long run all factors are varied.

**B** In the short run at least one factor is fixed; in the long run all factors can be varied.

**C** In the short run at least one factor is varied; in the long run all factors are fixed.

**D** In the short run at least one factor is varied; in the long run at least one factor is fixed.



**1** What is likely to lead to the principal-agent problem?

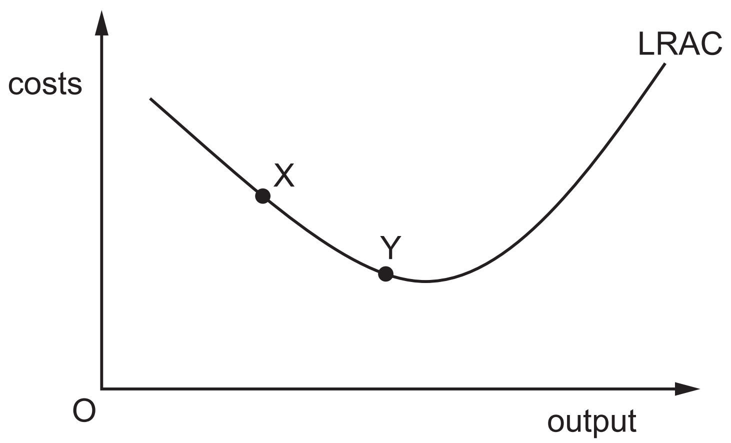
**A** a manager of a business makes decisions on behalf of the owner

**B** music festival tickets are purchased by a person who intends to sell them at a large profit

**C** the government is the only buyer of a pharmaceutical product

**D** there is only one firm that manufactures the product

**2** A small European airline currently produces at point X on its long-run average cost curve (LRAC). It wants a bigger share of the European airline market and proposes to merge with another small European airline. The newly merged firm would produce at point Y on the long-run average cost curve, as shown.




Why might the newly merged firm be able to produce at point Y?

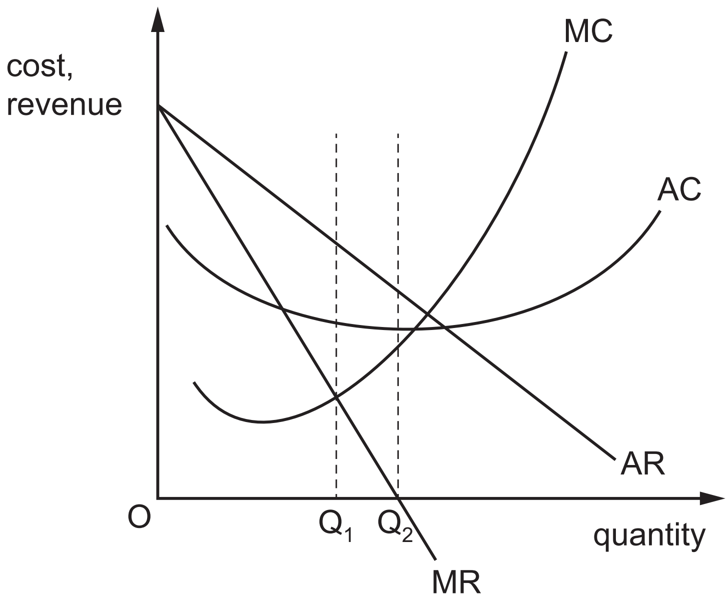
**A** The new airline can negotiate discounts when buying fuel.

**B** The new airline has many layers of management.

**C** The new airline is unable to hire enough pilots.

**D** The workforce of the new airline lacks morale and is demotivated.

**3** The diagram shows that a producer increases output from $Q_1$ to $Q_2$.




What will be the result?

| | total profit | total revenue |
|---|---|---|
| **A** | increased | increased |
| **B** | increased | reduced |
| **C** | reduced | increased |
| **D** | reduced | reduced |

**4** A consumer maximises his total utility by initially buying 10 units of good X and 10 units of good Y.

Assuming both goods are normal, what would cause this utility-maximising consumer to purchase more of good Y and less of good X?

**A** an increase in the marginal utility of good Y

**B** an increase in the price of good Y

**C** an increase in the tax on the consumption of good Y

**D** an increase in the tax on the income of consumers

**5** What is most likely to lead to a Pareto-optimal outcome?

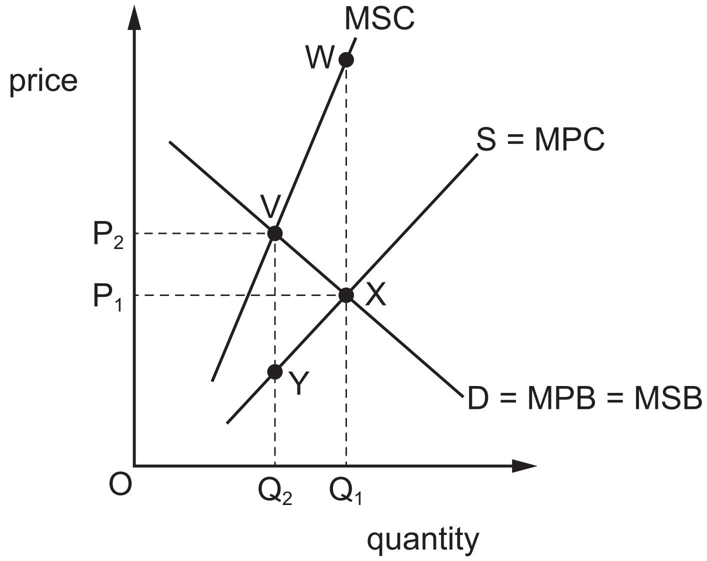
**A** offering bulk-buy discounts to customers who join a loyalty scheme

**B** switching labour from producing low-priced products to producing high-priced products

**C** switching production from labour-intensive products to capital-intensive products

**D** training low-skilled workers to operate machinery effectively

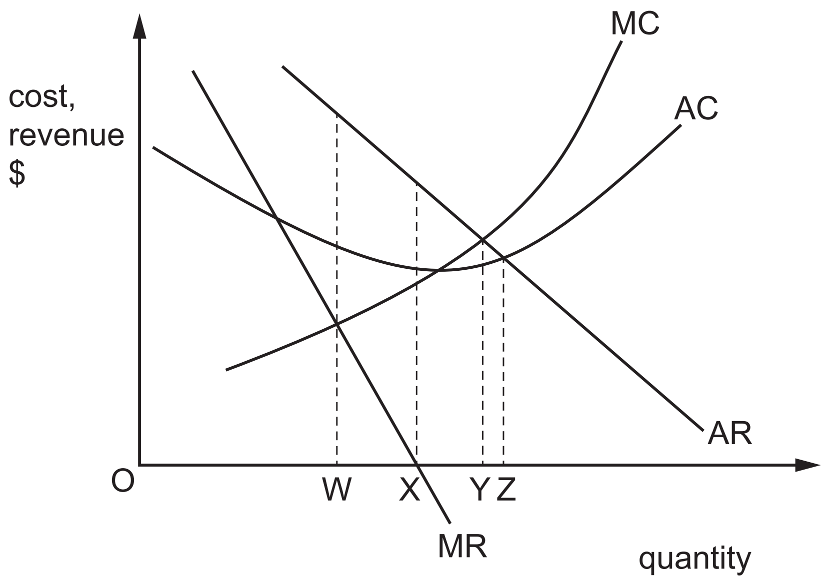
**6** The diagram shows market failure caused by negative production externalities.




Identify the correct combination of the result of the market failure and the area on the diagram that shows deadweight welfare loss.

| | result of market failure | area showing deadweight welfare loss |
|---|---|---|
| **A** | overproduction | VWX |
| **B** | overproduction | XYV |
| **C** | underproduction | VWX |
| **D** | underproduction | XYV |

**7** The diagram shows the cost and revenue curves of a firm.




The firm changes its objective from revenue maximisation to sales maximisation.

What will be the effect on quantity produced?

**A** it will decrease from Y to W

**B** it will decrease from Z to W

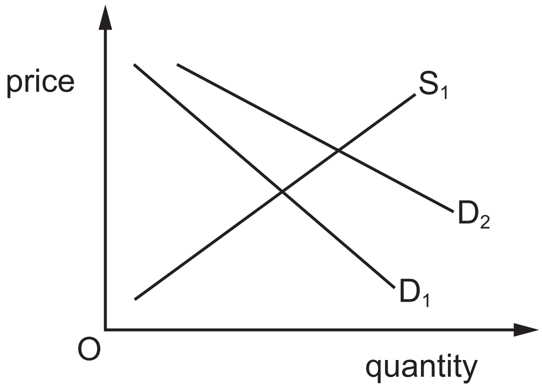
**C** it will increase from X to Y

**D** it will increase from X to Z

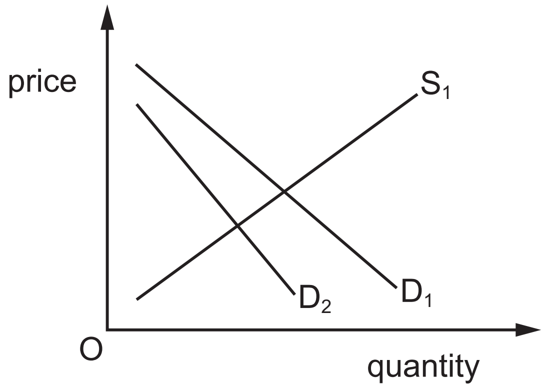
**8** The diagrams show the demand curve, $D_1$, and the supply curve, $S_1$, for a good that has a sales tax of 10% applied to the final selling price.

Which diagram shows the impact of a reduction in the rate of sales tax to 5%?

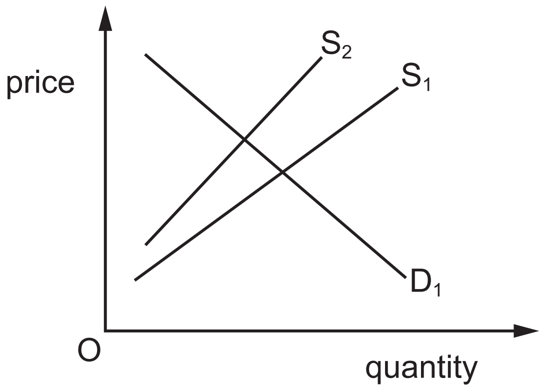
**A**



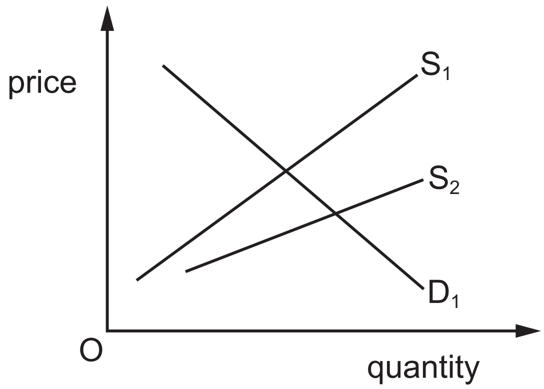

**B**




**C**




**D**



**5** The table gives the marginal utility of two goods, X and Y. The price of good X is \$2.00 and the price of good Y is \$1.00.

| quantity | marginal utility of good X | marginal utility of good Y |
|---|---|---|
| 1 | 110 | 66 |
| 2 | 80 | 50 |
| 3 | 66 | 38 |
| 4 | 56 | 33 |
| 5 | 33 | 30 |

If a consumer spends all of their income on goods X and Y, which combination of goods would they choose to maximise their utility?

**A** 1 unit of X and 1 unit of Y

**B** 3 units of X and 1 unit of Y

**C** 3 units of X and 4 units of Y

**D** 5 units of X and 1 unit of Y