

Part A

1. Explain the meaning of the identity

2. Suppose that the price of a good is constant. Then the budget constraint is given by

3. Write down the demand function for good \( x \) if the price of good \( y \) is zero.

4. Suppose the income \( Y \) is fixed. Then the demand function for good \( x \) is given by

5. Consider the Cobb-Douglas utility function. The demand function for good \( x \) is given by

Part B

1. Consider the Cobb-Douglas production function for goods and services. Then the technology function is given by

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