

1) Answer the questions

1- What does the budget line represent in terms of consumer choices when income and prices are fixed?

- The budget line represents all the combination of two goods that a consumer can purchase, given their income and the prices of the two goods, assuming that all income is spent.

2- How does an increase in income affect the position of the budget line?

- An increase in income shifts the budget line outward, meaning the consumer can afford more of both goods, thus increasing their consumption opportunities.

3- What happens to the budget line if the price of one of the goods change while income remains constant?

- A change in the price of one good causes the budget line to rotate around the intercept of the good whose price is unchanged. If the price decreases, the line pivots outward and becomes flatter, if the price increases the line pivots inward and becomes steeper, changing the opportunity cost.

4- Why are some combination of goods above or below the budget line considered unattainable or inefficient?

- Points above the budget line are unattainable ~~that~~ because they require an expenditure that exceeds the consumer's fixed income. Point below the line are attainable but considered inefficient because they leave some income ~~was~~ unspent meaning the consumer could purchase more and increase satisfaction.

5- Why does a budget line slope downward?

- A budget line slopes downward because it ~~it~~ represents a trade-off. Given a fixed income, consuming more of one good necessitates consuming less of the other good because resources are scarce.

6- How can understanding the slope of the budget line help consumers make decisions about purchasing two different goods?

- The slope of the budget line reveals the opportunity cost of one good in terms of the other. Understanding the slope helps consumers see the rate at which one good must be sacrificed to obtain one more unit of the other good. This is determined by the relative prices of the two items.

2) Complete the following task.

- Mary spends all of her income on books and bread. The price of a loaf of bread is \$2, and the price of a book is \$10. Mary's weekly income is \$100. 1- Draw Mary's budget line. 2- What is the opportunity cost of a book? bread? 3- Would the opportunity cost of book change if the prices of book and bread doubled?

1- The budget line equation is:

$$I = (P_B \times Q_B) + (P_{Book} \times Q_{Book})$$

2- The opportunity cost of a book is the amount of bread Mary must give up to purchase a one additional book

$$\text{Opportunity Cost of 1 Book} = \frac{\text{Price of Book}}{\text{Price of Bread}} = \frac{\$10}{\$2} = 5 \text{ loaves of bread}$$

3- No, the opportunity cost would not change