

Economics Problem: Consumer Choice and Marginal Benefit

The following table shows how the marginal benefit of shoes of given quality varies with the number Jill purchases each year. As shown, the price of shoes is \$29.99 per pair.

Pairs purchased per year Marginal Benefit (\$) Price (\$)

1 50 29.99

2 40 29.99

3 30 29.99

4 20 29.99

5 10 29.99

1. How many pairs will Jill buy if she is rational and the price reflects the marginal cost?

Answer:

A rational consumer will purchase a unit of a good if the Marginal Benefit(MB) is greater than or equal to the Price (which reflects the Marginal Cost).

- For the 1st pair: $MB = \$50 \geq \$29.99 \rightarrow$ Yes, buy.
- For the 2nd pair: $MB = \$40 \geq \$29.99 \rightarrow$ Yes, buy.
- For the 3rd pair: $MB = \$30 \geq \$29.99 \rightarrow$ Yes, buy.
- For the 4th pair: $MB = \$20 < \$29.99 \rightarrow$ No, stop buying.

Conclusion: Jill will buy 3 pairs of shoes per year.

2. Suppose the price of shoes increases to \$39.99 per pair. How many pairs will Jill now buy?

Answer:

We apply the same rule($MB \geq \text{Price}$) with the new price of \$39.99.

- For the 1st pair: $MB = \$50 \geq \$39.99 \rightarrow$ Yes, buy.
- For the 2nd pair: $MB = \$40 \geq \$39.99 \rightarrow$ Yes, buy.
- For the 3rd pair: $MB = \$30 < \$39.99 \rightarrow$ No, stop buying.

Conclusion: Jill will now buy 2 pairs of shoes per year.