What are Interest Rates?

Worksheet

Interest rates are the percentage of principal charged or earned per period for borrowing or saving money. They affect the cost of loans and the reward for savings, and are set by central banks and commercial lenders.

$$I = P \times r \times t$$

I = Interest amount (currency)
P = Principal (currency)
r = Interest rate (% per period)
t = Time (years)

Questions

1. $5,000 at 3% for 4 years. Simple interest earned?

A) $150
B) $600
C) $800
D) $200

2. If the central bank raises the federal funds rate, banks will...

A) Lower loan rates
B) Raise loan rates and savings rates
C) Keep rates the same
D) Eliminate all interest

3. Which borrower benefits most from low interest rates?

A) Saver
B) Bank
C) Loan borrower
D) Government

4. What happens to savings accounts when interest rates rise?

A) Returns decrease
B) Returns increase
C) No change
D) Deposits are frozen

5. You borrow $5,000 at 4% annual interest for 3 years (simple interest). How much interest do you pay?

6. You deposit $10,000 in a savings account at 2.5% annual interest. Interest after 2 years?

7. A credit card charges 18% annually on a $2,000 balance for 1 year. Interest charged?

8. Define: What is an interest rate?

9. Define: Who sets interest rates?

10. Define: How do higher interest rates affect the economy?

Answer Key

1. B) $600 — $I = 5000 \times 0.03 \times 4 = 600$.
2. B) Raise loan rates and savings rates — Higher central bank rates → banks pass the increase to customers.
3. C) Loan borrower — Borrowers pay less interest when rates are low.
4. B) Returns increase — Banks increase savings rates to attract deposits when central rates rise.
5. $I = P \times r \times t$ $I = 5000 \times 0.04 \times 3$ $I = 600$ dollars
6. $I = P \times r \times t$ $I = 10000 \times 0.025 \times 2$ $I = 500$ dollars
7. $I = P \times r \times t$ $I = 2000 \times 0.18 \times 1$ $I = 360$ dollars
8. The percentage of principal charged or earned per period for a loan or savings.
9. Central banks (federal funds rate) and commercial banks (loan/savings rates).
10. Borrowing becomes more expensive, saving more rewarding, so people spend less and save more—slowing growth.