

NAME: \_\_\_\_\_

DATE: \_\_\_\_\_

## INSTRUCTION

**\$100 Today vs. \$100 Tomorrow**

**What + Why:** Figure out how inflation changes what money can buy and whether money is actually growing in real value.

**Example Pathway A**

In Pathway A, Amara has been investing \$300 per month at 5.2% nominally for 7 years:

- Stated balance = \$35,775.
- Her real balance = \$28,241.
- Amount lost to inflation = \$7,534 ( $\$35,775 - \$28,241 = \$7,534$ ).
  - Amara lost 21% of her stated balance because of inflation ( $(\$7,534 \div \$35,775) \times 100 = 21.1\%$ ).
- Her real return = 2.2% ( $5.2\% - 3\% = 2.2\%$ ).

**Now you try!**

| Pathway B                                                                                                            | Pathway C                                                                                                            |
|----------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> <li>• Stated balance is \$42,272.</li> <li>• Real balance is \$33,370.</li> </ul> | <ul style="list-style-type: none"> <li>• Stated balance is \$36,873.</li> <li>• Real balance is \$29,108.</li> </ul> |

1. How much purchasing power did inflation take away in Pathways B and C?

$$\text{Stated Balance} - \text{Real Balance} = \text{Value Lost}$$

2. What percent of each stated balance was lost to inflation?

$$(\text{Value Lost} \div \text{Stated Balance}) \times 100 = \% \text{ Lost}$$

3. Pathway B grows at 9.0% nominally. What is Amara's real return?

$$\text{Nominal Return} - \text{Inflation Rate} \approx \text{Real Return}$$

4. Pathway C grows at 5.9% nominally. What is Amara's real return?

$$\text{Nominal Return} - \text{Inflation Rate} \approx \text{Real Return}$$

**In pairs, discuss:**

Which pathway has the biggest gap between nominal and real returns? Does that change which pathway looks most attractive?

5. CDs (Certificates of Deposit) earn a fixed nominal interest rate rather than an investment return. If a bank currently offers a 1-year CD at 4.5% and inflation is running at 3%, what would the real value of that interest rate be?

## Key Terms

- **inflation rate:** the percentage rate of change in the price level over time
- **nominal interest rate:** the interest rate before taking inflation into account
- **real interest rate:** the interest rate adjusted for inflation
- **time horizon:** the length of time an investor expects to hold an investment before needing the money, guiding risk tolerance and asset choices