Teacher Answer Key

Case Study

1. The account went from $10,129 at 18 to $16,217 at 30, so it earned $6,088 in those twelve years. That is more than the original $5,000 deposit, and Sarah added nothing during that time.

2. Each year's interest is figured on a larger balance than the year before. The same 4% earned more dollars at 18 than at birth, which is why the account gained more in twelve years without deposits than the $5,000 it started with.

Multiple Choice

1. C

2. A

3. D

Matching

1-B, 2-D, 3-E, 4-A, 5-C

Fill-in-the-Blank

1) A = P × (1 + r/n)^(n × t), 2) Compound interest, 3) Rule of 72

Short Answer (Sample Responses)

Q1: Compound interest accelerates growth by earning interest on previous interest, creating exponential growth over time.

Q2: Starting early allows more compounding periods, significantly increasing total earnings compared to starting later.

Q3: Compound interest on debt can quickly increase what is owed, making it essential to manage and pay off balances promptly.