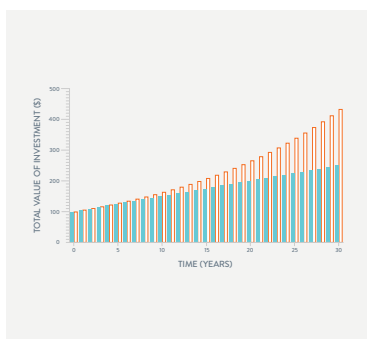


ACTIVITY B ANSWER KEY

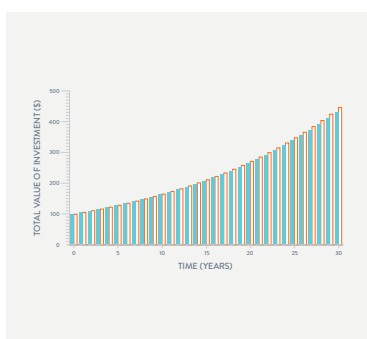
Compound Interest

INTERPRETING GRAPHS



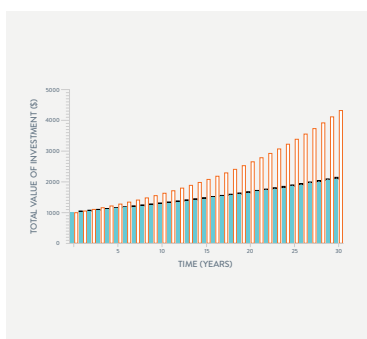
Graph 1: Simple Interest vs. Compound Interest

- The main factor is compound interest (Einstein has it, Blippy does not)
- Einstein earns interest on his interest; Blippy does not
- Einstein's graph is **exponential**; Blippy's graph is **linear**
- Blippy earns the same amount of interest each year; Einstein earns an increasing amount of interest each year
- Whether an investment compounds or not is set by the financial institution
- To increase interest earnings, look for investments with compound interest



Graph 2: Compounding Period

- The main factor is the compounding period (Einstein's interest compounds once a month and Blippy's interest compounds once a year)
- Einstein's investment earns more interest than Blippy's
- Investments that compound more frequently (shorter compounding period) earn more money
- The compounding period of an investment is set by the financial institution
- To increase interest earnings, look for investments with monthly or even weekly compounding



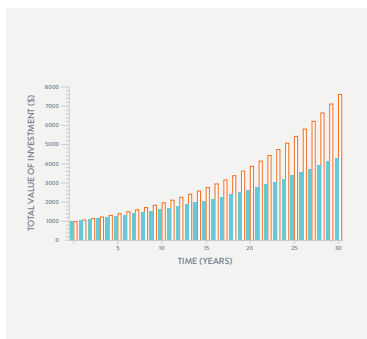
Graph 3: Spending the Interest

- The main factor is spending or withdrawing the interest vs. saving it
- Einstein's investment was worth \$1,077.36 more than Blippy's, even when you include the money Blippy spent
- Whether you spend your interest or not is under your control
- To increase interest earnings, allow your savings to grow uninterrupted
- Withdrawing from your long-term savings investments severely limits the effects of compound interest

ACTIVITY B ANSWER KEY

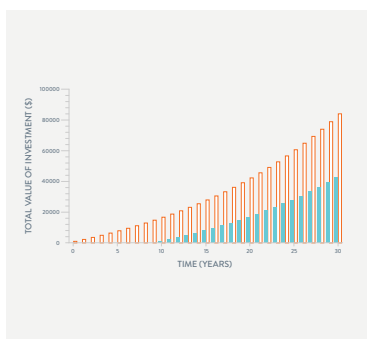
Compound Interest

INTERPRETING GRAPHS



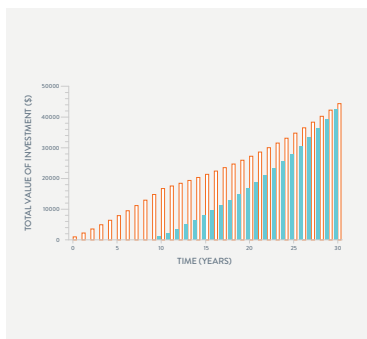
Graph 4: Interest Rate

- The main factor is the interest rate (Einstein's interest rate of 7% is higher than Blippy's interest rate of 5%)
- Both Blippy and Einstein earn an increasing amount of interest each year, but Einstein earns more than Blippy
- The interest rate of an investment is set by the financial institution
- To increase interest earnings, look for investments with high interest rates



Graph 5: Starting Early

- The main factor is starting to save early
- Einstein earned more than double the amount of interest that Blippy did simply by starting to save early
- Einstein did contribute more to his investment than Blippy did, since he was saving for a longer period of time
- Starting early is under your control
- To increase interest earnings, start saving as soon as possible
- Delaying on your savings goals limits the amount of interest you can earn



Graph 6: Starting Early and Contributing Less

- The main factor is starting to save early (even if you're contributing less)
- Einstein made more money even though he contributed only half the amount that Blippy did
- Both starting early and contributing often are under your control
- To increase interest earnings, start saving as soon as possible and contribute regularly to your savings
- Putting your savings off and choosing not to make regular contributions will limit the amount of interest you can earn

QUIZ ANSWER KEY

Compound Interest

MULTIPLE CHOICE

Directions: CIRCLE the best possible answer for each question.

- Compound interest is:
 - The amount of money upon which interest is paid
 - Earned on the principal amount only
 - Earned on the principal amount plus the interest already earned
 - The Rule of 72
- Which of the following actions will limit your long-term savings?
 - Getting a head start
 - Making regular contributions to your investment
 - Spending only 10% of the interest earned each year
 - All of the above
- Which of the following factors is the least under your control when it comes to compound interest?
 - The interest rate
 - The principal
 - The annual contribution amount
 - The duration of the investment
- The Rule of 72 is used to estimate:
 - How much your investment will be worth when you retire
 - How long it will take for your investment to double in value
 - How long it will take for your investment to earn \$72 of interest
 - How much money you should put into an investment

/4 pts

TRUE OR FALSE

Directions: CIRCLE either true or false.

- TRUE or FALSE All other factors being equal, an investment that compounds monthly will earn more interest than an investment that compounds annually.
- TRUE or FALSE All other factors being equal, an investment with simple interest will perform better than an investment with compound interest.
- TRUE or FALSE Compound interest can work against you.
- TRUE or FALSE The Rule of 72 only works for investments with compound interest.

/4 pts