Name: Answers! Class:

You earn $10,000 for college working in high school.

You then get a $10,000 scholarship based on your stellar SAT math scores.

You have to decide what to do with the extra $10,000 you now have.

Your uncle tells you to "save" the money in the bank, but you remember something about people who "invest" their money in the stock market.

You do some research and find out:

- The current average interest rate for a traditional savings account is **0.46%**.
- Over the past 30 years, the average annual return for stocks on the S&P 500 was **10.04%**.

Part A. How much would you have if you "saved" the money in a bank and did not touch it for 50 years? Write an expression and use Desmos to calculate.

$10000(1.0046)^{50} = \$12,579$

Part B. How much would you have after 50 years if you "invested" the money in a mutual fund based on the S&P 500? Write an expression and use Desmos to calculate.

$10000(1.1004)^{50} = \$1,195,444$