The Rule Of 72: Student Activity

How Long Until I Double My Investment?

Let's dive into the Rule of 72, a little tool that helps understand the compounding effect of interest rates by determining how quickly money can double when it grows at a certain rate, whether that's bank interest, investment returns, or credit card interests!

Question 1

Doug invested $2,500 into a Certificate of Deposit earning 6.5% interest. How long will it take to double Doug's investment?

Question 2

Let's say that Doug actually invested $500,000 into a Certificate of Deposit earning 3.5% interest. How long will it take to double Doug's investment? Why does the amount Doug invests not matter? Explain your reasoning.

Question 3

Ricky decided that instead of following Doug, he'd invest in a CD that had a 3.5% yield. Remember, yield is the same as interest in this context. How long will it take for Ricky to double their investment? How much longer is that than Doug's investment?

Question 4

The average Stock Market return since 1926 has been 11%. According to the Rule of 72, how often would an individual's investment double if they had invested in 1926? How much would $100, invested in 1926, using the 11% average return, be worth today?

Question 5
Using the previous question, let's say that the average return is only 8%. How often would an investment of $100 double, using the Rule of 72? Using your answer from the previous question, what is the difference between what your $100 investment would be worth if you earned 8% or 11% since 1926?

Question 6
Jessica has a balance of $2,200 on her credit card with an 18% interest rate. Her credit card company doesn't require a minimum payment on the balance and does not assess any late charges. If Jessica chooses not to make any payments on her outstanding balance, how long will it take for her balance to double?

Question 7
Jacob has $5,000 that he has saved from doing odd jobs around the neighborhood. When he graduates from college in four years, he would like to have $10,000 to use as a down payment on a new car. If Jacob is going to realize his dream, what interest rate will he have to invest his money at?

Question 8
Rhonda is 22 years old and would like to invest $2,000 into a U.S. Treasury Note earning 7.5% interest. How many times will Rhonda's investment double before she draws it out at age 70?