**DIRECTIONS:** Using the Rule of 72, answer the following questions. Please show your work.

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

2. The average Stock Market return since 1926 has been 11%. According to the Rule of 72, how often will an individual’s investment double in that time?

3. 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 (unheard of) and does not assess any late charges (also unheard of). If Jessica chooses not to make any payments on her outstanding balance, how long will it take for her balance to double?

4. 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?

5. 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?
RULE OF 72 KEY

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

\[
\frac{72}{6.5} = 11 \text{ YEARS}
\]

2. The average Stock Market return since 1926 has been 11%. According to the Rule of 72, how often will an individual's investment double?

\[
\frac{72}{11} = 6.5 \text{ YEARS}
\]

3. 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 (unheard of) and doesn't assess any late charges (unheard of also). If Jessica chooses not to make any payments on her outstanding balance, how long will it take for her balance to double?

\[
\frac{72}{18} = 4 \text{ YEARS}
\]

4. 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?

\[
\frac{72}{4} = 18\%
\]

5. 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 withdraws it at age 70?

\[
\frac{72}{7.5} = 9.6 \text{ (Money will double in 9.6 years)}
\]

\[
70 - 22 = 48 \text{ years} \quad \frac{72}{9.6} = 5 \text{ times (her money will double 5 times until she is 70).}
\]