Rule of 72
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Teacher Directions

Go over the Rule of 72 and do a few sample problems.

Example:  $72 / 6\% \text{ interest} = 12 \text{ years} \\
\quad 72 / 10 \text{ years} = 7.2\% \text{ interest}$

Students will need the internet to complete the first two columns of the activity. A variety of websites can be used to find funds and rates, although two resources are listed. Students will use the Rule of 72 to fill in the third column and answer the questions.

1. $72 / 4 = 18\%$
2. $72 / 6 = 12\%$
3. $72 / 18 = 4 \text{ years}$
4. $72 / 24 = 3 \text{ years}$
5. $72 / 6 = 12 \text{ years}$
6. $72 / 16 = 4.5 \text{ years to double: }$4,000 (18 years)
   - $250 + 250 = $500 (after 4.5 years)
   - $500 + $500 = $1,000 (after 9 years)
   - $1,000 + $1,000 = $2,000 (after 13.5 years)
   - $2,000 + $2,000 = $4,000 (18 years)
7. $72 / 12 \text{ (The money doubled in 12 years)} = 6\%$
8. $72 / 6 = 12 \text{ years}$
   - $72 / 12 = 6 \text{ years}$
   - $72 / 18 = 4 \text{ years}$
THE RULE OF 72
SIMPLE FORMULA. BIG REWARDS.

A number of different types of investment options are listed in the first column in the chart below. Using the tools of a financial reporting website, like bankrate.com or yahoofinance.com, find a provider for each type of investment listed. List the name of the fund or bank that you found in the second column, and the rate of return in the third column. Finally, use the Rule of 72 (right) to determine how long it will take your money to double using that particular type of investment, and write it in the fourth column.

<table>
<thead>
<tr>
<th>INVESTMENT</th>
<th>NAME OF FUND OR BANK</th>
<th>RATE OF RETURN</th>
<th>YEARS TO DOUBLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Money Market Mutual Fund</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>International Mutual Fund</td>
<td>Stanley Global Bond Fund</td>
<td>13.9%</td>
<td>5.2 years</td>
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<tr>
<td>Passbook Savings Account</td>
<td></td>
<td></td>
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<tr>
<td>Checking Account</td>
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<tr>
<td>3-Year Certificate of Deposit</td>
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<tr>
<td>5-Year Certificate of Deposit</td>
<td></td>
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<tr>
<td>Growth Stock Mutual Fund</td>
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</tbody>
</table>

Rule of 72

\[
\frac{72}{\text{interest rate}} = \text{years to double investment}
\]

\[
\frac{72}{\text{the years it takes to double}} = \text{interest rate}
\]

Use the Rule of 72 to answer the following questions.

1. What annual interest rate will cause your money to double in four years?

2. Tanner has invested $500 for college. What rate of return must Tanner earn for his investment to double in six years?
3. Jerrod owes $2,000 on a credit card that charges him an annual percentage rate of 18%. If Jerrod stopped making payments, how long would it be before the balance on his credit card reached $4,000?

4. Because Jerrod missed a payment, the credit card company automatically raised the interest rate to 24%. How many years would it be until his balance doubles, assuming he continues to make no payments?

5. Emily got a new job that guarantees her a 6% raise every year. If she started out making $25,000, how long will it be before she doubles her current salary?

6. If you invested $250 at 16% interest, how much will you have after 18 years?

7. Ron and Amie invested $5,000 in an educational savings account for their daughter when she was born. They were unable to ever add anything else to the account. What was the rate of return if they had $10,000 in the account after 12 years?

8. Kari would like to save $10,000 for a down payment on a house. Illustrate the difference in years it will take her to double her current $5,000 savings based on a 6%, 12% and 18% interest rate.