

Compound Interest and the Rule of 72

Summary: Your child will learn how compound interest works

Age Group: For high school students

Materials: Pen and paper or laptop/tablet, calculator

Instructions:

Compound interest is interest paid on a starting amount, called the principal, plus prior interest. This differs from simple interest in which interest is calculated on the original amount only. For example, \$100 in a savings account that pays 6 percent interest compounded annually earns \$6.00 in interest the first year.

$$\$100 \times 0.06 = \$6$$

$$\$100 + \$6 = \$106$$

That investment (\$106) in the second year earns \$6.36 in interest with compound interest.

$$\$106 \times 0.06 = \$6.36$$

$$\$106 + 6.36 = \$112.36$$

For compound interest to work, it requires time and the reinvestment of earnings. By giving investments more time to grow, the accumulation of interest on the interest itself can help increase a savings or investment account. You can quickly figure how long it would take to double your money by using the Rule of 72. Divide 72 by the interest rate to determine the number of years savers need for their money to grow. Savers also can divide 72 by the number of years to determine the interest rate they need to double their money. Use the Rule of 72 to answer the following questions. The first is done as an example.

1. A savings account has a 6% interest rate. How many years will it take for savings to double?
72/6=12 years
2. You are saving up for a big purchase and you need your money to double over 12 years. What interest rate do you need to look for in order for this to happen?
3. A savings account has a 4.7% interest rate. How many years will it take for savings to double?
4. A savings account has a 5% interest rate. How many years will it take for savings to double.
5. You are putting money away in an account to save for retirement. The money will be in this account for the next 30 years. What interest rate would be needed in order for this investment to double?

Extension: Need a visual as to how compound interest works? Watch [this](#) video. Did this inspire your child to set up a savings account? Help them find a financial institution that would be the best fit for them.

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