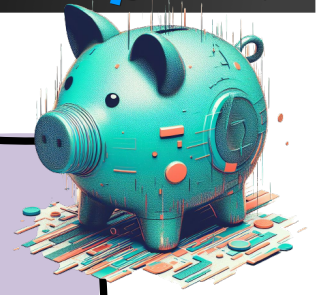


Name: _____

Calculating Compound Interest



Compound Interest Formula

$$A = P \left(1 + \frac{r}{n} \right)^{nt}$$

Where A is the final amount, P is the initial principal balance, r is the interest rate (expressed as a decimal), n is the number of times the interest is compounded per period, and t is the number of years.

Directions: Use the compound interest formula to solve each of the following to the nearest cent.

- 1.) JT invests \$741 in a savings account with a fixed annual interest rate of 1% compounded 6 times per year. What will the account balance be after 25 years?
- 2.) Luigi invests \$741 in a savings account with a fixed annual interest rate of 6.7% compounded 2 times per year. What will the account balance be after 12 years?
- 3.) Bianca invests \$9,873 in a savings account with a fixed annual interest rate of 4.4% compounded 12 times per year. What will the account balance be after 30 months?
- 4.) Christian invests \$15,000 in a savings account with a fixed annual interest rate of 3.89% compounded 4 times per year. What will the account balance be after 5 years?
- 5.) Tina invests \$10,210 in a savings account with a fixed annual interest rate of 5.16% compounded 10 times per year. What will the account balance be after 4.25 years?
- 6.) Gerald invests \$75,350 in a savings account with a fixed annual interest rate of 8.08% compounded 2 times per year. What will the account balance be after 9 years?
- 7.) Desiree invests \$806 in a savings account with a fixed annual interest rate of 12.72% compounded 36 times per year. What will the account balance be after 8.5 years?
- 8.) Andruw invests \$54,777 in a savings account with a fixed annual interest rate of 6.09% compounded 8 times per year. What will the account balance be after 21 years?

ANSWER KEY

1.) JT invests \$741 in a savings account with a fixed annual interest rate of 1% compounded 6 times per year. What will the account balance be after 25 years?

\$951.26

2.) Luigi invests \$741 in a savings account with a fixed annual interest rate of 6.7% compounded 2 times per year. What will the account balance be after 12 years?

\$1,634.07

3.) Bianca invests \$9,873 in a savings account with a fixed annual interest rate of 4.4% compounded 12 times per year. What will the account balance be after 30 months?

\$11,018.80

4.) Christian invests \$15,000 in a savings account with a fixed annual interest rate of 3.89% compounded 4 times per year. What will the account balance be after 5 years?

\$18,203.44

5.) Tina invests \$10,210 in a savings account with a fixed annual interest rate of 5.16% compounded 10 times per year. What will the account balance be after 4.25 years?

\$12,706.37

6.) Gerald invests \$75,350 in a savings account with a fixed annual interest rate of 8.08% compounded 2 times per year. What will the account balance be after 9 years?

\$153,705.51

7.) Desiree invests \$806 in a savings account with a fixed annual interest rate of 12.72% compounded 36 times per year. What will the account balance be after 8.5 years?

\$2,371.74

8.) Andruw invests \$54,777 in a savings account with a fixed annual interest rate of 6.09% compounded 8 times per year. What will the account balance be after 21 years?

\$195,845.71