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## Compound Interest

Use the Compound Interest Formula to calculate the compound interest word problems: NOTE: Interest Compounded Semi Annually

1. You take out a loan for $\$ 882$ at an interest rate of $10 \%$ compounded semiannually for seven years. What is the total amount that you will have at the end of the seven years?
2. How long must $\$ 415$ be invested at a rate of $6 \%$ compounded semiannually to earn $\$ 291.51$ in interest?
3. Your final balance on an investment of $\$ 749$ invested at $7 \%$ compounded semiannually was $\$ 920.71$. For what period of time did you invest?
4. If you take out a loan that costs $\$ 58.71$ over two years at an interest rate of $7 \%$ compounded semiannually, how much was the loan for?
5. At what rate was an investment made that obtains $\$ 492.32$ in interest compounded semiannually on \$350 over nine years?
6. You invested $\$ 200$ and after four years the total amount of the investment was $\$ 243.68$. What was the interest rate if it was compounded semiannually?
7. The cost of a loan for $\$ 881$ over four years is $\$ 279.11$ compounded semiannually. What was the rate on the loan?
8. How long must $\$ 536$ be invested at a rate of $5 \%$ compounded semiannually to earn $\$ 117.06$ in interest?
9. If you borrow $\$ 103$ for eight years at an interest rate of $5 \%$ compounded semiannually, how much interest will you pay?
10. If you received $\$ 59.45$ on $\$ 470$ invested at a rate of $3 \%$ compounded semiannually, for how long did you invest the principal?
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## Compound Interest

Use the Compound Interest Formula to calculate the compound interest word problems: NOTE: Interest Compounded Semi Annually

1. You take out a loan for $\$ 882$ at an interest rate of $10 \%$ compounded semiannually for seven years. What is the total amount that you will have at the end of the seven years?

## \$1,746.30

2. How long must $\$ 415$ be invested at a rate of $6 \%$ compounded semiannually to earn $\$ 291.51$ in interest?
nine years
3. Your final balance on an investment of $\$ 749$ invested at $7 \%$ compounded semiannually was $\$ 920.71$. For what period of time did you invest?
three years
4. If you take out a loan that costs $\$ 58.71$ over two years at an interest rate of $7 \%$ compounded semiannually, how much was the loan for?
\$398
5. At what rate was an investment made that obtains $\$ 492.32$ in interest compounded semiannually on $\$ 350$ over nine years?

10\%
6. You invested $\$ 200$ and after four years the total amount of the investment was $\$ 243.68$. What was the interest rate if it was compounded semiannually?

5\%
7. The cost of a loan for $\$ 881$ over four years is $\$ 279.11$ compounded semiannually. What was the rate on the loan?

7\%
8. How long must $\$ 536$ be invested at a rate of $5 \%$ compounded semiannually to earn $\$ 117.06$ in interest?
four years
9. If you borrow $\$ 103$ for eight years at an interest rate of $5 \%$ compounded semiannually, how much interest will you pay?
$\$ 49.90$
10. If you received $\$ 59.45$ on $\$ 470$ invested at a rate of $3 \%$ compounded semiannually, for how long did you invest the principal?
four years

