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## Compound Interest

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

1. If a loan is taken out for $\$ 302$ at $7 \%$ compounded semiannually and costs $\$ 95.68$, how long was the loan for?
2. How much principal must be invested to earn $\$ 227.30$ in three years at an interest rate of $9 \%$ compounded semiannually?
3. What will the final balance be for $\$ 237$ invested at $6 \%$ compounded semiannually for five years?
4. If you invest $\$ 992$ at an interest rate of $3 \%$ compounded semiannually, how much money will you have after three years?
5. The cost of a loan for $\$ 618$ over five years is $\$ 253.75$ compounded semiannually. What was the rate on the loan?
6. You put $\$ 292$ into a savings account with an interest rate of $5 \%$ compounded semiannually which earns $\$ 120.59$ over a period of time. How long was the period of time?
7. What was the interest rate if your balance on an investment of $\$ 273$ at the end of three years is $\$ 325.98$ and the interest was compounded semiannually?
8. What was the interest rate if your balance on an investment of $\$ 432$ at the end of three years is \$546.62 and the interest was compounded semiannually?
9. How long must $\$ 722$ be invested at a rate of $5 \%$ compounded semiannually to earn $\$ 249.01$ in interest?
10. If you invest $\$ 361$ at an interest rate of $8 \%$ compounded semiannually, how much money will you have after three years?
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## Compound Interest

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

1. If a loan is taken out for $\$ 302$ at $7 \%$ compounded semiannually and costs $\$ 95.68$, how long was the loan for?
four years
2. How much principal must be invested to earn $\$ 227.30$ in three years at an interest rate of $9 \%$ compounded semiannually?
\$752
3. What will the final balance be for $\$ 237$ invested at $6 \%$ compounded semiannually for five years? \$318.51
4. If you invest $\$ 992$ at an interest rate of $3 \%$ compounded semiannually, how much money will you have after three years?
\$1,084.70
5. The cost of a loan for $\$ 618$ over five years is $\$ 253.75$ compounded semiannually. What was the rate on the loan?

7\%
6. You put $\$ 292$ into a savings account with an interest rate of $5 \%$ compounded semiannually which earns $\$ 120.59$ over a period of time. How long was the period of time?
seven years
7. What was the interest rate if your balance on an investment of $\$ 273$ at the end of three years is $\$ 325.98$ and the interest was compounded semiannually?

6\%
8. What was the interest rate if your balance on an investment of $\$ 432$ at the end of three years is $\$ 546.62$ and the interest was compounded semiannually?

8\%
9. How long must $\$ 722$ be invested at a rate of $5 \%$ compounded semiannually to earn $\$ 249.01$ in interest?
six years
10. If you invest $\$ 361$ at an interest rate of $8 \%$ compounded semiannually, how much money will you have after three years?
\$456.78

