

Compound Interest Formula

$A(t) = P\left(1 + \frac{r}{n}\right)^{nt}$ where P is the principal, r is the annual interest rate, n is the number of times interest is compounded per year, and t is time in years.

Find the amount of the investment.

1. \$10,000 invested at 1% compounded monthly for $2\frac{1}{2}$ years.
2. \$14,500 invested at 10% compounded annually for 3 years.
3. \$13,500 invested at 9% compounded quarterly for $7\frac{1}{2}$ years.
4. \$10,500 invested at 6% compounded semi-annually for $4\frac{1}{2}$ years.
5. \$2,500 invested at 5% compounded monthly for 5 years.
6. \$6,500 invested at 3% compounded annually for $5\frac{1}{2}$ years.
7. \$8,000 invested at 8% compounded quarterly for $3\frac{1}{2}$ years.
8. 2,000 invested at 7% compounded semi-annually for $6\frac{1}{2}$ years.
9. \$5,000 invested at 4% compounded monthly for 2 years.
10. If a principal of \$1,380 is invested at an annual interest rate of 4% compounded annually, what is the account balance at the end of 6 years?