

Compound Interest: You should use a calculator to find the answers. Round to the nearest cent!!

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

1. You are going to invest \$125,000 in an account that offers an 8% interest rate for 35 years.

a. Find the amount in the account if the interest is compounded annually.

b. Find the amount in the account if the interest is compounded monthly.

c. Find the amount in the account if the interest is compounded daily.

d. How much more interest was gained in c than in a?

2. Now suppose that you need to have \$500,000 in 35 years and you are going to invest in an account that compounds interest at 8% monthly. How much money should be invested to have \$500,000 in 35 years?