
For the next problems, show all work to receive full credit. No Work = No Credit.

1. A family wants to have a \$250,000 college fund for their children at the end of 25 years. What contribution must be made at the end of each quarter if their investment pays 7.6% compounded quarterly?

$$250,000 = R \left(\frac{(1 + \frac{.076}{4})^{100} - 1}{\frac{.076}{4}} \right)$$
$$R \approx \$814.66$$

2. Find the present value of an annuity designed to pay \$700 at the end of each quarter for 12 years if the interest rate is 8% compounded quarterly.

$$P = 700 \left(\frac{1 - (1 + \frac{.08}{4})^{-48}}{\frac{.08}{4}} \right)$$
$$P \approx \$21,471.18$$