Financial Goal Calculations

Recall:

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

where:

A = the amount at the end

P = the principal or starting amount

r = the interest rate per year (in decimal form)

t = the time the money is invested or borrowed, in years

n = the number of times per year that interest is compounded

Hint: You will need to use the formula and insert known values to solve for the missing value. This is very much like algebra when you are solving for the unknown variable as you will need to calculate in reverse.

1. Suppose they would like to have $6,000.00 in 5 years. They can invest their money at 4% compounded quarterly. How much do they need to invest today (present value) to achieve this savings goal?

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2. Suppose they would like to have $8,000.00 in 7 years. They can invest their money at 5% compounded semi-annually. How much do they need to invest today (present value) to achieve this savings goal?

3. Suppose they would like to have $10,000.00 in 5 years. They can invest their money at 3% compounded quarterly. How much do they need to invest today (present value) to achieve this savings goal?