

Some useful formulas:

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

$$A = P(1 + rt)$$

$$A = P \left[\frac{(1 + i)^m - 1}{i} \right]$$

$$V = P \left[\frac{1 - (1 + i)^{-m}}{i} \right]$$

(1) [3] Determine the amount of the annuity (that is, the future value) if deposits of \$100 are made at the end of each year for 10 years. The interest rate on the deposits is 10% compounded annually. (Round your answer to two decimal places.)

(2) [6] Dan wishes to have \$350,000 in a pension fund 20 years from now. How much should he deposit at the end of each month into an account paying 5% compounded monthly to have \$350,000 at the end of the 20 years? (Round your answer to two decimal places.)

(3) [6] A person has just retired at age 65 and wants to provide himself retirement income for the next 20 years. An investment fund which pays 5% per annum compounded monthly is available. What lump sum deposit into the investment fund is required now which will allow withdrawals of \$250 at the end of each month for the next 20 years? (Round your answer to two decimal places.)