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Show all work to receive full credit. Supply explanations when necessary.

1. (2 points) Dorothy deposits $\$ 18,000$ into an account earning $7.85 \%$ compounded quarterly. Determine her effective interest rate. Write your final answer in percent form.
2. (5 points) A 30-year-old plans to retire at age 65 . She decides to invest her inheritance of $\$ 75,000$ into an account earning $8.25 \%$ compounded semiannually.
(a) How much money will be in the account when she is 65 years old?
(b) How much of the money in the account is from interest?
3. (3 points) Maria plans to make a lump-sum deposit into an account earning 5.5\% compounded monthly. How much should she deposit now in order to have $\$ 20,000$ in 15 years?
