6.3–6.4 Quiz

Buying a House **In Exercises 1–4, use the information below.**

You want to buy a $100,000 house. You plan to make a $20,000 down payment.

1. Each month for 5 years, you deposit $300 into a savings account that earns 5%, compounded monthly. After 5 years, you use the money in the account to make the down payment.
   a. How much is left in the account?
   b. You leave the remaining amount from part (a) in the account. Assuming you do not make any more deposits, how much is in the account after 14 years?

2. You take out a home mortgage for $80,000 for 30 years. Compare the total interest you pay for the annual percentage rates.
   a. 5% **b.** 7%

DATA

3. You take out a home mortgage for $80,000 for 30 years at 5.5%. Each month, you make the regular payment of $454.23 plus an additional $50.
   a. How much sooner do you pay off the mortgage?
   b. How much do you save in interest?

4. You take out a home mortgage for $80,000 for 30 years at 6%. After 5 years, you move to a different state and sell the home for $140,250.

Expenses and Savings Related to Buying

Cost of home: $100,000	Realtor's fee: 5% of cost of home
Down payment: $20,000	Home insurance: $600 per year
Mortgage: $80,000	Property tax: 1% of cost of home per year
Monthly payment: $479.64	Home repairs: $6000
Closing costs: 5% of cost of home	Income tax savings (interest): $5000

Compare the costs of buying the home and renting a comparable home for $550 per month. Assume that if you did not buy the home, you could have invested the down payment and earned $4000 in interest.

Retirement Plan **In Exercises 5 and 6, use the information below.**

You start your working career when you are 22 years old. Each month, you deposit $150 into a retirement plan that earns 6%, compounded monthly. You continue making deposits into the plan until you are 67 years old.

5. Find the balance in the account.

6. How many years can the account support withdrawals of $70,000 a year?