Fill in the Blanks In 1–3, complete the statement.

1. The original amount of money placed in an investment is called the _________.

2. If a savings account earns compound interest, it means that

3. The annual rate of interest earned after all the compounding has taken effect is called the _____________________.

USES Objective G

In 4–8, find the annual percentage yield on the account with the given description.

4. 6% interest, compounded quarterly

5. 8% interest, compounded semi-annually

6. 18.5% interest, compounded monthly

7. 5.25% interest, compounded daily for 360 days per year

8. 3.75% interest, compounded daily for 365 days per year

9. Yu invests $500 in a savings account that pays 3.2% interest compounded annually. How much money will be in his account after 5 years if no deposits or withdrawals take place during the 5 years?

10. Debbie invested $5000 in a 5-year CD (certificate of deposit) that pays 7.8% interest compounded quarterly. The CD matures next February. If no deposits or withdrawals have taken place during the 5-year period, how much money will the CD be worth when it matures?

11. Maria invests $6000 in an IRA (individual retirement account) 25 years before she plans to retire. With a 4% annual yield, if Maria makes no deposits or withdrawals during the 25 years, what will be the value of the IRA when it matures?

12. Bank X pays 2.75% interest on a savings account, compounded monthly. Bank Y pays 2.75% interest, compounded daily for 365 days per year.
   a. Which bank should you use?
   b. You have $3500 to save for three years. How much more money will you have at the end of three years with the bank you chose in Part a?
13. Suppose that you plan to put $1000 in a credit-union savings account for two years at 4% interest compounded daily. Shoreline Credit Union compounds 360 days a year; South Side Credit Union compounds 365 days a year. How much more money will you earn if you invest at South Side?

14. Suppose $2500 is invested for \(1 \frac{1}{2}\) years. Plan A pays 3.12% interest compounded daily for 365 days per year. Plan B pays 3.13% interest compounded quarterly. If the investment is untouched for the entire time, which plan will earn more interest? How much interest will each plan earn?

15. Nairi invests $800 in a savings account that pays 4.2% interest compounded annually. How much money will be in the account after 4 years, if he leaves the money untouched?

16. Mrs. Rubino puts $2500 in a 5-year CD that pays 7.4% interest, compounded quarterly. How much money will the CD be worth when it matures?

17. When their daughter was 2 years old, the Azarians paid $7000 for a 15-year college bond for her. The bond pays 7.1% compounded monthly. Their banker told them that if they left the money alone it would triple in value. Is the banker right? How much is the bond worth after 15 years?

18. Nancy has $4000 in a savings account that pays 3.9% interest, compounded semi-annually. Suppose the money is left untouched for 10 years.
   a. How much money is in the account after the first five years?
   b. How much money is in the account after 10 years?
   c. Does the account earn more interest during the first five years or the second five years? Explain your answer.

19. Bianca invests $1800 in an account that pays 4.4% compounded daily for 365 days per year. If she leaves the money alone, how much will be in the account after 2.5 years?