

***Financial Algebra Advanced Algebra with Financial
Applications 2nd edition Gerver Test Bank***

SKU: 9781337271790-TEST-BANK

Chapter 02 - Banking Services

1. Aaron wants to know how much he needs to save each month in his savings account to have a certain amount in the future. He should use the formula for present value of a periodic deposit investment.

- a. True
- b. False

ANSWER: False

RATIONALE: He should use the future value of periodic investment.

POINTS: 1

QUESTION TYPE: True / False

HAS VARIABLES: False

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2. Interest compounded semiannually is compounded four times a year.

- a. True
- b. False

ANSWER: False

RATIONALE: Semiannual compounding is interest compounded twice per year, or every six months.

POINTS: 1

QUESTION TYPE: True / False

HAS VARIABLES: False

DATE CREATED: 1/25/2017 3:28 AM

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3. To reconcile a check register means to match all the entries in the register with the statement received from the bank and correct any discrepancies.

- a. True
- b. False

ANSWER: True

POINTS: 1

QUESTION TYPE: True / False

HAS VARIABLES: False

DATE CREATED: 1/25/2017 3:30 AM

DATE MODIFIED: 2/7/2017 7:15 AM

4. Maxine deposited \$1,000 into an account that pays 4.5% interest, compounded daily. At the end of six months, she has earned \$12 in interest.

- a. True
- b. False

ANSWER: False

RATIONALE: $B = p \left(1 + \frac{r}{n} \right)^{nt} = 1,000 \left(1 + \frac{0.045}{365} \right)^{0.5(365)} \approx \$1,022.75; 1,022.75 - 1,000 = \22.75 interest

POINTS: 1

QUESTION TYPE: True / False

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HAS VARIABLES: False

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5. The Federal Deposit Insurance Corporation insures bank accounts up to a particular amount. This means that if the bank fails, the money is guaranteed by the government.

a. True

b. False

ANSWER: True

POINTS: 1

QUESTION TYPE: True / False

HAS VARIABLES: False

DATE CREATED: 1/25/2017 3:49 AM

DATE MODIFIED: 2/13/2017 12:15 AM

6. Compound interest earns more than simple interest at the same interest rate because compounding pays interest on the interest earned.

a. True

b. False

ANSWER: True

POINTS: 1

QUESTION TYPE: True / False

HAS VARIABLES: False

DATE CREATED: 1/25/2017 3:50 AM

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7. Annual percent yield is higher than the annual percentage rate because APY takes into account the additional interest earned by compounding.

a. True

b. False

ANSWER: True

POINTS: 1

QUESTION TYPE: True / False

HAS VARIABLES: False

DATE CREATED: 1/25/2017 3:57 AM

DATE MODIFIED: 2/7/2017 7:18 AM

8. James and Terry open a savings account that has a 2.75% annual interest rate, compounded monthly. They deposit \$500 into the account each month. How much will be in the account after 20 years?

a. \$48,407.45 b. \$159,744.59

c. \$330,600.15 d. \$580,894.18

ANSWER: b

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RATIONALE:

$$B = \frac{P \left(\left(1 + \frac{r}{n} \right)^{nt} - 1 \right)}{\frac{r}{n}} = \frac{500 \left(\left(1 + \frac{0.0275}{12} \right)^{12(20)} - 1 \right)}{\frac{0.0275}{12}} \approx \$159,744.59$$

POINTS: 1

QUESTION TYPE: Multiple Choice

HAS VARIABLES: False

DATE CREATED: 1/25/2017 3:58 AM

DATE MODIFIED: 2/13/2017 12:18 AM

9. Margarite wants to take a trip to Japan in 8 years. She knows she will need about \$4,200. How much should she deposit into an account now that pays 3.5% interest, compounded daily, to meet her goal? Round to the nearest dollar.

- a. \$1,026 b. \$1,706
c. \$3,174 d. \$3,781

ANSWER: c

RATIONALE:

$$P = \frac{B}{\left(1 + \frac{r}{n} \right)^{nt}} = \frac{4,200}{\left(1 + \frac{0.035}{365} \right)^{365(8)}} = \$3,174$$

POINTS: 1

QUESTION TYPE: Multiple Choice

HAS VARIABLES: False

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10. Tamika opened a money market account that has a 4.25% annual interest rate, compounded annually. She deposits \$1,750 into the account each year. How much interest will the account earn after 15 years?

- a. \$9,419.40 b. \$33,949.40
c. \$35,699.40 d. \$71,398.40

ANSWER: a

RATIONALE:

$$B = \frac{P \left(\left(1 + \frac{r}{n} \right)^{nt} - 1 \right)}{\frac{r}{n}} = \frac{1,750 \left(\left(1 + \frac{0.0425}{1} \right)^{1(15)} - 1 \right)}{\frac{0.0425}{1}} \approx \$35,699.40 - (1,750 \times 15) = \$9,419.40$$

POINTS: 1

QUESTION TYPE: Multiple Choice

:

HAS VARIABLES: False

DATE CREATED: 1/25/2017 4:10 AM

DATE MODIFIED: 2/13/2017 12:22 AM

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11. Jackson deposited \$5,000 at 3.8% interest, compounded continuously, when he was 18 years old. How much will be in the account when he is 40 years old if he made no other deposits or withdrawals?

- a. \$19,000.19 b. \$11,535.60
c. \$10,691.38 d. \$8,800.00

ANSWER: b

RATIONALE: $B = pe^{rt} = 5,000 e^{0.038(22)} \approx \$11,535.60$

POINTS: 1

QUESTION TYPE: Multiple Choice

HAS VARIABLES: False

DATE CREATED: 1/25/2017 4:15 AM

DATE MODIFIED: 2/13/2017 12:24 AM

12. Loretta deposits \$350 every quarter into a savings account that earns 4.5% interest compounded quarterly. What is the balance after 7 years?

- a. \$10,312.63 b. \$11,344.18
c. \$11,444.27 d. \$12,477.74

ANSWER: c

RATIONALE:
$$B = \frac{P \left(\left(1 + \frac{r}{n} \right)^{nt} - 1 \right)}{\frac{r}{n}} = \frac{350 \left(\left(1 + \frac{0.045}{4} \right)^{4(7)} - 1 \right)}{\frac{0.045}{4}} \approx \$11,444.27$$

POINTS: 1

QUESTION TYPE: Multiple Choice

HAS VARIABLES: False

DATE CREATED: 1/25/2017 4:19 AM

DATE MODIFIED: 2/13/2017 12:26 AM

13. Bob and Kathy want to save a total of \$500,000 for retirement. How much should they deposit monthly into an account that pays 3.9% interest, compounded monthly, to meet their goal in 24 years?

- a. \$950.41 b. \$2,102.34
c. \$1,051.17 d. \$4,446.41

ANSWER: b

RATIONALE:
$$P = \frac{B \times \frac{r}{n}}{\left(1 + \frac{r}{n} \right)^{nt} - 1} = \frac{500000 \times \frac{0.039}{12}}{\left(1 + \frac{0.039}{12} \right)^{12(24)} - 1} \approx \$1,051.17$$

POINTS: 1

QUESTION TYPE: Multiple Choice

HAS VARIABLES: False

DATE CREATED: 1/25/2017 4:40 AM

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DATE MODIFIED: 2/13/2017 12:28 AM

14. How much more would \$1,000 earn in 5 years in an account compounded continuously than in an account compounded quarterly if the interest rate on both accounts is 3.7%?

- a. \$86.40 b. \$51.07
c. \$36.10 d. \$1.02

ANSWER: d

RATIONALE: $B = pe^{rt} = 1,000 e^{0.037(5)} \approx 1,203.22$
 $B = p \left(1 + \frac{r}{n}\right)^{nt} = 1,000 \left(1 + \frac{0.037}{4}\right)^{5(4)} \approx \$1,202.20$

POINTS: 1

QUESTION TYPE: Multiple Choice

HAS VARIABLES: False

DATE CREATED: 1/25/2017 4:46 AM

DATE MODIFIED: 2/13/2017 12:30 AM

15. LaToya has \$113.94 in her checking account. During the week, she goes to an ATM and withdraws \$40. She is charged a usage fee of \$2.50. The following week she deposits her paycheck of \$189.73. She writes two checks, one for \$22.50 and the other for \$70.18. What is the current balance in her checking account?

- a. \$170.99 b. \$168.49
c. \$145.99 d. -\$21.24

ANSWER: b

RATIONALE: $113.94 - (40 + 2.5) + 189.73 - 22.5 - 70.18 = \168.49

POINTS: 1

QUESTION TYPE: Multiple Choice

HAS VARIABLES: False

DATE CREATED: 1/25/2017 5:16 AM

DATE MODIFIED: 2/13/2017 12:32 AM

16. Conrad Savings Bank has a \$50 overdraft fee. On Friday, Mr. McQuire deposited his paycheck of \$468.92 for a total account balance of \$712.34. The next morning, his wife wrote a check for \$1,267.45 for a new refrigerator and stove. The check cleared the bank by the end of the day. What is the current balance in the McQuires' account?

- a. -\$798.53
b. -\$605.11
c. -\$555.11
d. -\$405.11

ANSWER: b

RATIONALE: $712.34 - 1,267.45 - 50 = -\605.11

POINTS: 1

QUESTION TYPE: Multiple Choice

HAS VARIABLES: False

DATE CREATED: 1/25/2017 5:19 AM

DATE MODIFIED: 2/13/2017 12:33 AM

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17. Erin has a balance of \$1,150.34 in her check register. On her statement, the balance of her account is \$844.93. Not reported on the bank statement are deposits of \$125.56, \$50, and \$212.34. There are outstanding checks in the amount of \$15 and \$78.25 and an ATM withdrawal of \$40. After Erin reconciles her check register with her statement, what entry does she need to make in her register?

- a. Adjusting entry of \$101.76 b. Adjusting entry of -\$101.76
c. Adjusting entry of \$50.76 d. Adjusting entry of -\$50.76

ANSWER: d

RATIONALE: Subtract the deposits from Erin's balance and add the outstanding checks. Erin's resulting balance is \$895.69, which is \$50.76 more than the statement. Erin needs to adjust her check register by subtracting \$50.76 to balance with her statement.

POINTS: 1

QUESTION TYPE: Multiple Choice

HAS VARIABLES: False

DATE CREATED: 1/25/2017 5:59 AM

DATE MODIFIED: 2/13/2017 12:35 AM

18. Malcolm wants to make a deposit into an account that earns interest. He wants to be able to access the money on a limited basis. What type of account should he NOT consider?

- a. Money market account b. Statement savings account
c. Certificate of deposit (CD) d. Savings account

ANSWER: c

RATIONALE: There are no deposits or withdrawals from a CD without penalty.

POINTS: 1

QUESTION TYPE: Multiple Choice

HAS VARIABLES: False

DATE CREATED: 1/25/2017 6:02 AM

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19. What does the variable n represent in the formula below?

$$P = \frac{B \times \frac{r}{n}}{\left(1 + \frac{r}{n}\right)^m - 1}$$

ANSWER: n is the number of times interest is compounded annually.

POINTS: 1

QUESTION TYPE: Subjective Short Answer

HAS VARIABLES: False

DATE CREATED: 1/25/2017 6:06 AM

DATE MODIFIED: 2/13/2017 12:37 AM

20. Amy opened a savings account with \$1,750 she received for graduation. The account pays 4.3% simple interest. What is the balance after 6 months?

ANSWER: \$1,787.63; $I = prt = 1,750 \times 0.043 \times 0.5 \approx 37.63$; $1,750 + 37.63 = \$1,787.63$

POINTS: 1

Chapter 02 - Banking Services**QUESTION TYPE:** Subjective Short Answer**HAS VARIABLES:** False**DATE CREATED:** 1/25/2017 6:08 AM**DATE MODIFIED:** 2/13/2017 12:39 AM

21. What is the interest earned on \$20,000 for 5 years, at an interest rate of $3\frac{3}{5}\%$ compounded continuously?

ANSWER: \$3,944.35; $B = pe^{rt} = 20,000e^{(0.036)(5)} \approx 23,944.35$; $23,944.35 - 20,000 = \$3,944.35$

POINTS: 1**QUESTION TYPE:** Subjective Short Answer**HAS VARIABLES:** False**DATE CREATED:** 1/25/2017 6:11 AM**DATE MODIFIED:** 2/13/2017 12:40 AM

22. Tammy sold a diamond ring for \$10,000. She placed half of the money into a CD with a 3.9% interest rate compounded daily. She placed the other half into a CD with the same interest rate but compounded monthly. What is the difference in the interest earned on each amount after 4 years?

ANSWER: The account compounded daily earns \$1.43 more.

$$B = p \left(1 + \frac{r}{n} \right)^{nt} = 5,000 \left(1 + \frac{0.039}{365} \right)^{365(4)} \approx \$5,844.08;$$

$$B = p \left(1 + \frac{r}{n} \right)^{nt} = 5,000 \left(1 + \frac{0.039}{12} \right)^{12(4)} \approx \$5,842.65;$$

$$\$5,844.08 - \$5,842.65 = \$1.43$$

POINTS: 1**QUESTION TYPE:** Subjective Short Answer**HAS VARIABLES:** False**DATE CREATED:** 1/25/2017 6:16 AM**DATE MODIFIED:** 2/13/2017 12:41 AM

23. Huong deposits \$2,000 into an account that earns 4.2% interest compounded daily. What is the annual percentage yield (APY) to the nearest hundredth of a percent?

ANSWER: $APY = \left(1 + \frac{r}{n} \right)^n - 1 = \left(1 + \frac{0.042}{365} \right)^{365} - 1 \approx 4.29\%$

POINTS: 1**QUESTION TYPE:** Subjective Short Answer**HAS VARIABLES:** False**DATE CREATED:** 1/25/2017 6:21 AM**DATE MODIFIED:** 2/13/2017 12:43 AM

24. Tyrone opens an account at the local bank by depositing \$50 of his birthday money. He continues to deposit \$50 each

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month for 5 years. If the account pays $3\frac{1}{4}\%$ interest compounded monthly, how much is in the account after 5 years?

ANSWER:

$$B = \frac{P \left(\left(1 + \frac{r}{n} \right)^{nt} - 1 \right)}{\frac{r}{n}} = \frac{50 \left(\left(1 + \frac{0.0325}{12} \right)^{12(5)} - 1 \right)}{\frac{0.0325}{12}} \approx \$3,252.74$$

POINTS: 1

QUESTION TYPE: Subjective Short Answer

HAS VARIABLES: False

DATE CREATED: 1/25/2017 6:26 AM

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25. Carmencita is 12 years old and she is saving for a car. She wants to have \$5,000 by the time she is 16 years old. She opens a savings account with an APR of 3.9% compounded weekly. How much should she deposit into her account each week to meet her goal?

ANSWER:

$$P = \frac{B \times \frac{r}{n}}{\left(1 + \frac{r}{n} \right)^{nt} - 1} = \frac{5,000 \times \frac{0.039}{52}}{\left(1 + \frac{0.039}{52} \right)^{52(4)} - 1} \approx \$22.22$$

POINTS: 1

QUESTION TYPE: Subjective Short Answer

HAS VARIABLES: False

DATE CREATED: 1/25/2017 6:29 AM

DATE MODIFIED: 2/13/2017 12:58 AM

26. Sonja and Jake just got married. They received \$4,500 in gift money and deposited it into a savings account that pays 2.85% simple interest. How much will they have in savings after 3 years?

ANSWER: \$4,884.75; $I = prt = 4,500 \times 0.0285 \times 3 = 384.75$; $384.75 + 4,500 = \$4,884.75$

POINTS: 1

QUESTION TYPE: Subjective Short Answer

HAS VARIABLES: False

DATE CREATED: 1/25/2017 6:40 AM

DATE MODIFIED: 2/13/2017 12:59 AM

27. Ashley and Dwayne are saving for retirement. Their goal is to have \$250,000 in 15 years. They open up an account with an APR of 3.7% compounded monthly. How much should they deposit each month to meet their goal?

ANSWER:

$$\$1,041.03; P = \frac{B \cdot \frac{r}{n}}{\left(1 + \frac{r}{n} \right)^{nt} - 1} = \frac{250000 \cdot \frac{0.037}{12}}{\left(1 + \frac{0.037}{12} \right)^{12(15)} - 1} = \$1,041.03$$

POINTS: 1

QUESTION TYPE: Subjective Short Answer

Chapter 02 - Banking Services**HAS VARIABLES:** False**DATE CREATED:** 1/25/2017 6:43 AM**DATE MODIFIED:** 2/24/2017 2:46 PM

28. Edward wants to have \$50,000 in 10 years for college. What single deposit would he need to make now into an account that pays 4.3% interest, compounded daily, to meet his goal?

ANSWER:

$$\text{\$ } 32,526.28; P = \frac{B}{\left(1 + \frac{r}{n}\right)^{nt}} = \frac{50,000}{\left(1 + \frac{0.043}{365}\right)^{365(10)}} \approx \text{\$ } 32,526.28$$

POINTS: 1**QUESTION TYPE:** Subjective Short Answer**HAS VARIABLES:** False**DATE CREATED:** 1/25/2017 6:47 AM**DATE MODIFIED:** 2/13/2017 1:00 AM

29. Ron and Annie have \$1,239.45 in their checking account. During the week, Annie goes to an ATM and withdraws \$80. The following week Ron deposits his paycheck of \$689.65. Annie then pays bills online in the amounts of: \$212.80, \$55, \$49.76, and \$110.35. What is the current balance in their checking account?

ANSWER: \$1,421.19; $1,239.45 + 689.65 = 1,929.10$;
 $1,929.10 - 212.80 - 55 - 49.76 - 110.35 - 80 = 1,421.19$

POINTS: 1**QUESTION TYPE:** Subjective Short Answer**HAS VARIABLES:** False**DATE CREATED:** 1/25/2017 6:49 AM**DATE MODIFIED:** 2/13/2017 1:01 AM

30. The Parsons have a balance of \$3,664.47 in their check register. On their bank statement, the balance on the account is \$2,346.89. Not reported on the bank statement are checks of \$324.56, \$25.50, \$78.92, and \$30.25. There are outstanding deposits in the amount of \$500 and \$1,456.81. There are three ATM withdrawals of \$60 each. What do the Parsons need to do to reconcile their checkbook?

ANSWER: The Parsons need to do nothing because the account is balanced.
 $2,346.89 + 500 + 1,456.81 = 4,303.70$;
 $4,303.70 - 3(60) - 324.56 - 25.50 - 78.92 - 30.25 = 3,664.47$

POINTS: 1**QUESTION TYPE:** Subjective Short Answer**HAS VARIABLES:** False**DATE CREATED:** 1/25/2017 6:51 AM**DATE MODIFIED:** 2/13/2017 1:04 AM

31. Annalise has an online checking account at Wells Fargo Bank. Her balance at the beginning of the month was \$5,000.00. During the month, she made deposits totaling \$5,478.42, was charged a maintenance fee of \$18, and earned \$1.87 in interest. Her balance at the end of the month was \$4,187.93. Annalise grew concerned because she spent considerably more than she made during the month. How much did Annalise spend during the month?

ANSWER: Annalise spent \$6,274.36 during the month.
 $5,000.00 + 5,478.42 - 18.00 + 1.87 - 4,187.93 = 6,274.36$

Chapter 02 - Banking Services**POINTS:** 1**QUESTION TYPE:** Subjective Short Answer**HAS VARIABLES:** False**DATE CREATED:** 1/25/2017 6:54 AM**DATE MODIFIED:** 2/13/2017 1:05 AM

32. Jericho wants to start saving to purchase a house. His goal is to save \$95,000. If he deposits \$56,000 into an account that pays 3.75% interest compounded daily, approximately how long will it take for his money to grow to the desired amount? Round your answer to the nearest tenth of a year.

ANSWER: Jericho needs to wait approximately 14.1 years.

$$t = \frac{\log_{(1+r/n)}\left(\frac{B}{P}\right)}{n} = \frac{\log\left(\frac{B}{P}\right)}{n \cdot \log(1+r/n)} = \frac{\log\left(\frac{95,000}{56,000}\right)}{365 \cdot \log(1+0.0375/365)} = 5,144.5762/365 = 14.1$$

POINTS: 1**QUESTION TYPE:** Subjective Short Answer**HAS VARIABLES:** False**DATE CREATED:** 1/25/2017 6:57 AM**DATE MODIFIED:** 2/13/2017 1:06 AM

33. Landry deposits \$10,000 into an account that compounds interest continuously at a rate of 2.375%. How long will it take his money to grow to \$11,000? Round your answer to the nearest tenth of a year.

ANSWER: Landry needs to wait approximately 4.0 years.

$$t = \frac{\ln\left(\frac{B}{P}\right)}{r} = 0.09531/0.02375 = 4.013$$

POINTS: 1**QUESTION TYPE:** Subjective Short Answer**HAS VARIABLES:** False**DATE CREATED:** 1/25/2017 7:04 AM**DATE MODIFIED:** 2/13/2017 1:07 AM

34. Anne has opened up a systematic savings account into which she deposits \$500 per month compounded monthly at a rate of 7.8%. How long will it take her to reach \$500,000? Round your answer to the nearest tenth of a year.

ANSWER: Anne needs to wait approximately 25.9 years.

$$t = \frac{\log\left(1 + \frac{Br}{Pn}\right)}{n \cdot \log(1+r/n)} = \frac{\log\left(1 + \frac{500,000 \cdot 0.078}{500 \cdot 12}\right)}{12 \cdot \log(1+0.078/12)} = 0.875061/0.033765 = 25.916$$

Chapter 02 - Banking Services**POINTS:** 1**QUESTION TYPE:** Subjective Short Answer**HAS VARIABLES:** False**DATE CREATED:** 1/25/2017 7:07 AM**DATE MODIFIED:** 2/13/2017 1:08 AM

35. Steve inherited \$100,000 from his grandmother and deposited it into an account that compounds interest monthly at a rate of 4.9%. Each month, he withdraws \$500 from the account. How long will it take him until the account has a balance of \$0? Round your answer to the nearest tenth of a year.

ANSWER: Steve's account will reach \$0 in about 34.7 years.

$$t = \frac{\log\left(1 - \frac{Pr}{Wn}\right)}{-1 \cdot n \cdot \log(1 + r/n)} = \frac{\log\left(1 - \frac{100,000 \cdot 0.049}{500 \cdot 12}\right)}{-1 \cdot 12 \cdot \log(1 + 0.049/12)} = -0.736759 / -0.021237 = 34.692$$

POINTS: 1**QUESTION TYPE:** Subjective Short Answer**HAS VARIABLES:** False**DATE CREATED:** 1/25/2017 7:14 AM**DATE MODIFIED:** 2/13/2017 1:10 AM

36. Alesha wants to deposit \$25,000 into an account that compounds interest. She hopes to have \$40,000 in 7 years for a down payment on a house. What interest rate must she find in order to accomplish her goal? Round your answer to the nearest hundredth of a percent.

ANSWER: Alesha needs to find an investment with an APR of 6.71%.

$$r = \frac{\ln\left(\frac{B}{P}\right)}{t} = 0.470036 / 7 = 0.067143$$

POINTS: 1**QUESTION TYPE:** Subjective Short Answer**HAS VARIABLES:** False**DATE CREATED:** 1/26/2017 1:14 AM**DATE MODIFIED:** 2/13/2017 1:11 AM

37. Rajesh invested \$30,000 into an account that has a monthly rate of return of 0.79%. He has made arrangements to withdraw \$250 automatically every month to pay off his 10-year student loan. Will Rajesh have enough money in the account to cover all of the required loan payments? If so, how long can he continue to withdraw \$250 each month to put toward a car payment? (Round to the nearest year.)

ANSWER: Yes, he will pay it off in 10 years and still have two years to continue making the withdrawals.

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$$t = \frac{\log\left(1 - \frac{Pr}{Wn}\right)}{-1 \cdot n \cdot \log(1 + r/n)} = \frac{\log\left(1 - \frac{30,000 \cdot 0.0948}{350 \cdot 12}\right)}{-1 \cdot 12 \cdot \log(1 + 0.0948/12)} = 11.972628 \text{ years}$$

$$\text{Difference} = 11.972628 \text{ years} - 10 \text{ years} = 1.972628 \text{ years}$$

POINTS: 1

QUESTION TYPE: Subjective Short Answer

HAS VARIABLES: False

DATE CREATED: 1/26/2017 1:18 AM

DATE MODIFIED: 2/13/2017 1:12 AM

38. Curtis deposited \$10,000 into an account that compounds interest annually at a rate of 5%. He wants to know how long it will take for his money to double but doesn't have a calculator with logarithms. If he estimates the answer to his question using the Rule of 72s, and then later tries to verify his estimate with a better calculator, how many days will his estimate be off? Round your answer to the nearest day.

ANSWER: Curtis's estimate will be off by 71 days.

Rule of 72s $t = 72/5 = 14.4$ years

$$t = \frac{\log_{(1+r/n)}\left(\frac{B}{P}\right)}{n} = \frac{\log\left(\frac{B}{P}\right)}{n \cdot \log(1 + r/n)} = \frac{\log\left(\frac{20,000}{10,000}\right)}{1 \cdot \log(1 + 0.05/1)} = 0.301030/0.021189 = 14.206699$$

$$\text{Difference} = 14.4 - 14.206699 = 0.193301 \text{ years} * 365 \text{ days/year} = 70.55 \text{ days}$$

POINTS: 1

QUESTION TYPE Subjective Short Answer

:

HAS VARIABLES: False

DATE CREATED: 1/26/2017 1:24 AM

DATE MODIFIED: 2/13/2017 1:15 AM