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## Semester Exam Review (chapters 3, 4, 5)

$\qquad$ 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.
$\qquad$ 2. Interest compounded semiannually is compounded four times a year.
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.
$\qquad$ 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.
$\qquad$ 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.
6. Compound interest earns more than simple interest at the same interest rate because compounding pays interest on the interest earned.
7. Annual percent yield is higher than the annual percentage rate because APY takes into account the additional interest earned by compounding.
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?
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, in order to meet her goal? Round to the nearest dollar.
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?
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?
12. Loretta deposits $\$ 350$ every quarter into a savings account that earns $4.5 \%$ interest compounded quarterly. What is the balance after 7 years?
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?
14. How much more would $\$ 1,000$ earn in 5 years in an account compounded continuously than an account compounded quarterly if the interest rate on both accounts is $\$ 3.7 \%$ ?
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?
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 McQuire's account?
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?
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?
19. A debit card is a type of charge card where the monthly bill must be paid in full.
20. Last month the ending balance on Maryanne's Mastercard was $\$ 1,789$, the average daily balance was $\$ 755$, and the monthly periodic rate is $1.85 \%$. Her finance charge can be calculated by multiplying the ending balance times the monthly periodic rate. So the finance charge is $\$ 1,789 \times 0.0185=\$ 33.10$.
21. Taneeka borrowed $\$ 12,000$ for a car for 6 years at an APR of $7.25 \%$. Her monthly payment will be $\$ 206.03$.
22. Interest can be the money paid by a bank to a consumer as compensation for keeping their money in that bank. Interest can also be the money paid to a bank for the use of their money.
23. The Truth-in-Lending Act protects consumers from harassment from creditors.
24. A FICO score is named after its creator, Fair, Isaac, and Company. It summarizes the probability that a person with debt will repay that debt.
25. FICO scores range from 300 to about 850 . A score above 770 is excellent, a score above 700 is good, and a score below 600 is considered a credit risk.
26. The total interest on a five-year $5.2 \%$ loan with a principal of $\$ 10,000$ is $10,000 \times 0.052 \times 5=\$ 2,600$.
27. Max found a car he wants to buy that costs $\$ 16,000$. He can afford to pay $\$ 250$ a month for the car. His bank offers him a car loan of $7.3 \%$. The length of his loan should be about 5 years so he can afford the payments.
28. Regina pays her credit card balance in full each month. Last month her average daily balance was $\$ 345$ and the APR is $11.2 \%$. The finance charge on her current month's statement is $\$ 13.22$.
29. Use the summary section of the monthly credit card statement below to calculate the finance charge.

| SUMMARY | Previous <br> Balance | Payments / Credits | Transactions | Late Charge | Finance Charge | New Balance | Minimum Payment |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \$750.00 | \$70.00 | \$110.00 | \$0.00 | ? |  | \$40.00 |
|  |  |  |  | Average Daily Balance | \# Days in Billing Cycle | APR | Monthly Periodic Rate |
|  |  |  |  | \$805.00 | 30 | 15\% | 1.25\% |

30. Jerry buys a $\$ 2,700$ motorcycle on a deferred payment plan. There is no down payment and no interest for eighteen months. Jerry must make a minimum payment of $\$ 75$ a month. To avoid a retroactive APR of $21 \%$, he must pay the balance in full before the 18 months has passed. If he pays $\$ 75$ each month, how much should he pay the last month to avoid the interest charges?
31. Mantago wants to borrow $\$ 10,000$ to buy a used car. He examined his budget and decides that he can afford a payment of $\$ 200$ a month. If his bank offers him an APR of $7.5 \%$, how long should he borrow the money so he can afford his monthly payment?
32. Lisa made this spreadsheet to compare her options when she decided to purchase a living room set on an installment plan.

|  | A | B | C | D | E | F |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | Purchase <br> Price | Down <br> Payment | Monthly <br> Payment | Time in <br> Months | Total of <br> Payments | Finance <br> Charges |
| 2 | $\$ 2,300.00$ | $\$ 200.00$ | $\$ 125.00$ | 24 | $\$ 3,000.00$ | $\$$ |
| 3 | $\$ 1,700.00$ | $\$ 200.00$ | $\$ 100.00$ | 18 | $\$ 1,800.00$ | $\$$ |
| 4 | $\$ 2,500.00$ | $\$ 200.00$ | $\$ 140.00$ | 20 | $\$ 2,800.00$ | $\$$ |

What spreadsheet formula should she input into F2?
33. Isabella wants to purchase a new refrigerator. When she applies for an installment loan at the appliance store, her loan application is turned down. What consumer law says that a lender must give her the reason, in writing, that she was denied the loan?
34. Yanni received her monthly credit card statement in the mail, the summary of which is shown below. When she calculated the new balance for the month, she arrived at a different amount than the credit card company. What should be the correct new balance?

| SUMMARY | Previous <br> Balance | Payments <br> /Credits | Transactions | Late <br> Charge | Finance <br> Charge | New <br> Balance | Minimum <br> Payment |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\$ 3,569$ | $\$ 130.00$ | $\$ 275.00$ | $\$ 0.00$ | $\$ 82.28$ | $\$ 3,796.28$ | $\$ 100.00$ |
| Total Credit Line |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |

35. Dr. Drake is thinking about retirement and decides to sail around the world once he retires. He buys a sailboat for $\$ 125,000$. He borrows the money at an APR of $7.5 \%$ for five years. What will his total interest be?
36. Jackson and Kate Jones do not pay their credit card in full each month, so they incur finance charges. On their last credit card statement, the average daily balance is $\$ 875$ and the monthly periodic rate is $2.25 \%$. What should be the finance charge on the statement?
37. What is the monthly periodic rate on a loan with an APR of $18.6 \%$ ?
38. Two consumers borrowed $\$ 10,000$ for five years. Bob has a credit score of 650 and has an interest rate of $11.5 \%$, while Tyree has a credit score of 710 and has an interest rate of $8.0 \%$. What will be the total difference between what the two men pay?
39. Property damage liability pays for injuries to a driver or their passengers caused by an uninsured or underinsured driver.
40. A car traveling at an average rate of 60 miles per hour will drive 270 miles in $4 \frac{1}{2}$ hours.
41. A car traveling on asphalt makes a sudden stop. The drag factor of the road is 0.7 and the brakes are operating at $90 \%$ efficiency. If the car leaves 4 distinct skid marks that are 60 feet long, then the car was traveling about 37 miles per hour.
42. Cars with ABS or anti-lock brakes do not leave skid marks.
43. The fee that a driver pays to have automobile insurance is called a deductible.
44. Sarah bought a 7 -year old car for $\$ 10,500$. When the car was new, it sold for $\$ 21,000$. Therefore, the depreciation rate is $9.4 \%$.
45. Yolanda wants to buy a fuel efficient car. She finds one that can travel 465 miles on one tank of gas. If the gas tank holds 15 gallons, the car gets about 41 miles per gallon.
46. Mrs. Beluga is driving on a snow covered road with a drag factor of 0.2 . She brakes suddenly for a deer. The tires leave a yaw mark with a 52 -foot chord and a middle ornate of 6 feet. What is the minimum speed she could have been going?
47. Larry's car is worth $\$ 18,000$ after 5 years. When the car was new, it sold for $\$ 24,000$. What is the depreciation rate?
48. Saheel has $\$ 20,000$ property damage insurance and $\$ 5,000$ comprehensive and collision insurance with a $\$ 500$ deductible. One evening he slides on a patch of ice and hits a parked car, causing $\$ 4,500$ worth of damage. The accident causes $\$ 1,750$ of damage to his own car. How much will the insurance pay to fix both cars?
49. Cherie pays her car insurance monthly. Her annual premium is $\$ 984$. Each month she is charged a $\$ 2$ convenience fee. If her annual premium is divided equally into twelve month payments, how much is her monthly insurance payment?
50. Craig is an accident reconstructionist. He arrives at an accident where there are 4 skid marks of different lengths. He finds their measures to be $85 \mathrm{ft}, 92 \mathrm{ft}, 88 \mathrm{ft}$, and 90 ft . It is an asphalt road with a drag factor of 0.8 . Because he does not know the efficiency of the driver's brakes, he assumes a brake efficiency of $80 \%$. What is the minimum speed the driver could have been going?
