Exam

Name_____

MULTIPLE CHOICE. Choose the one alternative that best completes the statement or answers the question.

Find the present value for the given future amount. Round to the nearest cent.

1) A = $4900, 8 years 1) _____
r = 8% compounded quarterly
A) $2299.90 B) $2647.32 C) $9234.25 D) $2600.10

Solve the problem.

2) Two competitive banks offer credit cards. Bank X charges 1.4% per month on the unpaid balance and no annual fee. Bank Y charges 1.1% per month with an annual fee of $60. Suppose your average unpaid balance is $600. Which bank's card is the better choice for you? 2) _____
A) They are the same. B) Bank X C) Bank Y

Find the APR (true annual interest rate), to the nearest half percent, for the following loan.

3) Amount Financed = $2300 3) _____
Finance Charge = $260
Number of Monthly Payments = 24
A) 11.5% B) 10% C) 11% D) 10.5%

The following problem involves adjustable–rate mortgage. You will need a table of monthly payments.

4) Harry has a 1–year ARM for $75,000 over a 25–year term. The margin is 2%, and the index rate starts out at 8.5% and increases to 10% at the first adjustment. The balance of principal at the end of the first year is $74,113.56. Find the amount of interest owed for the first month of the second year. 4) _____
A) $731.25 B) $741.14
C) $674.79 D) None of the above is correct.

Solve the problem.

5) The monthly payment on a(n) $99,000 loan at 12% annual interest is $1090.08. How much of the first monthly payment will go toward interest? 5) _____
A) $130.80 B) $959.19 C) $1188.00 D) $990.00

Solve the problem. If necessary, refer to the table below.

Monthly Payments to Repay Principal and Interest on a $1000 Mortgage

	Term of Mortgage (Years)					
Annual Rate (r)	5	10	15	20	25	30
8.0%	$20.27639	$12.13276	$9.55652	$8.36440	$7.71816	$7.33765
8.5%	20.51653	12.39857	9.84740	8.67823	8.05227	7.68913
9.0%	20.75836	12.66758	10.14267	8.99726	8.39196	8.04623
9.5%	21.00186	12.93976	10.44225	9.32131	8.73697	8.40854
10.0%	21.24704	13.21507	10.74605	9.65022	9.08701	8.77572
10.5%	21.49390	13.49350	11.05399	9.98380	9.44182	9.14739
11.0%	21.74242	13.77500	11.36597	10.32188	9.80113	9.52323
11.5%	21.99261	14.05954	11.68190	10.66430	10.16469	9.90291
12.0%	22.24445	14.34709	12.00168	11.01086	10.53224	10.28613

6) In order to purchase a home, a family borrows $65,000 at an annual interest rate of 11%, to be paid back over a 30–year period in equal monthly payments. How much interest will they pay over the 30–year period? Round to the nearest dollar. 6) _____

A) $215,694 B) $445,867 C) $222,844 D) $157,844

7) In order to purchase a home, a family borrows $60,000 at an annual interest rate of 9%, to be paid back over a 15–year period in equal monthly payments. What is their monthly payment? 7) _____

A) $30.00 B) $608.56 C) $667.67 D) $450.00

The following problem involves adjustable–rate mortgage. You will need a table of monthly payments.

8) Harry has a 1–year ARM for $85,000 over a 30–year term. The margin is 2%, and the index rate starts out at 8.5% and increases to 10% at the first adjustment. The balance of principal at the end of the first year is $74,113.56. Find the amount of monthly payment for the first month of the first year. 8) _____

A) $689.42 B) $777.53

C) $718.14 D) None of the above is correct.

Solve the problem. If necessary, refer to the table below.

Monthly Payments to Repay Principal and Interest on a $1000 Mortgage

	Term of Mortgage (Years)					
Annual Rate (r)	5	10	15	20	25	30
8.0%	$20.27639	$12.13276	$9.55652	$8.36440	$7.71816	$7.33765
8.5%	20.51653	12.39857	9.84740	8.67823	8.05227	7.68913
9.0%	20.75836	12.66758	10.14267	8.99726	8.39196	8.04623
9.5%	21.00186	12.93976	10.44225	9.32131	8.73697	8.40854
10.0%	21.24704	13.21507	10.74605	9.65022	9.08701	8.77572
10.5%	21.49390	13.49350	11.05399	9.98380	9.44182	9.14739
11.0%	21.74242	13.77500	11.36597	10.32188	9.80113	9.52323
11.5%	21.99261	14.05954	11.68190	10.66430	10.16469	9.90291
12.0%	22.24445	14.34709	12.00168	11.01086	10.53224	10.28613

9) Constance Hairston obtains a 20–year, $133,750 mortgage at 11% on a house selling for $159,000. Her monthly payment, including principal and interest, is $1380.55. How much of the total cost will be interest? 9) _____

A) 59.6% B) 40.4% C) 61.9% D) 57.9%

Solve the problem. If necessary, use the table of monthly payments below. Round your answer to the nearest cent.

Monthly Payments to Repay Principal and Interest on a $1000 Mortgage

	Term of Mortgage (Years)					
Annual Rate (r)	5	10	15	20	25	30
8.0%	$20.27639	$12.13276	$9.55652	$8.36440	$7.71816	$7.33765
8.5%	20.51653	12.39857	9.84740	8.67823	8.05227	7.68913
9.0%	20.75836	12.66758	10.14267	8.99726	8.39196	8.04623
9.5%	21.00186	12.93976	10.44225	9.32131	8.73697	8.40854
10.0%	21.24704	13.21507	10.74605	9.65022	9.08701	8.77572
10.5%	21.49390	13.49350	11.05399	9.98380	9.44182	9.14739
11.0%	21.74242	13.77500	11.36597	10.32188	9.80113	9.52323
11.5%	21.99261	14.05954	11.68190	10.66430	10.16469	9.90291
12.0%	22.24445	14.34709	12.00168	11.01086	10.53224	10.28613

10) Find the monthly payment needed to amortize principal and interest for the following fixed–rate mortgage. 10) _____

Mortgage amount: $195,100
Term of mortgage: 5 years
Interest rate: 8.5%

A) $4049.96 B) $2418.96 C) $3955.92 D) $<4002.78

Solve the problem. If necessary, refer to the table below.

Monthly Payments to Repay Principal and Interest on a $1000 Mortgage

	Term of Mortgage (Years)					
Annual Rate (r)	5	10	15	20	25	30
8.0%	$20.27639	$12.13276	$9.55652	$8.36440	$7.71816	$7.33765
8.5%	20.51653	12.39857	9.84740	8.67823	8.05227	7.68913
9.0%	20.75836	12.66758	10.14267	8.99726	8.39196	8.04623
9.5%	21.00186	12.93976	10.44225	9.32131	8.73697	8.40854
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10.5%	21.49390	13.49350	11.05399	9.98380	9.44182	9.14739
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11.5%	21.99261	14.05954	11.68190	10.66430	10.16469	9.90291
12.0%	22.24445	14.34709	12.00168	11.01086	10.53224	10.28613

11) For the fixed–rate mortgage below, determine the portion of the total monthly payment which is income–tax deductible. Round your answer to the nearest dollar. 11) _____

Amount of mortgage:	$142,000
Term of mortgage:	25 years
Interest rate:	7.0%
Annual property tax:	$1025
Annual insurance:	$620
Owner's income tax bracket:	30%

A) $1079 B) $914 C) $965 D) $880

12) In order to purchase a home, a family borrows $86,000 to be paid back over a 25–year period in equal monthly payments. What percentage of the first monthly payment goes toward the principal if the annual interest rate is 8%? If the annual interest rate is 12%? 12) _____

A) 14.1%; 5.9% B) 13.6%; 5.1% C) 12.7%; 6.1% D) 86.4%; 94.9%

The following problem involves adjustable–rate mortgage. You will need a table of monthly payments.

13) Harry has a 1–year ARM for $75,000 over a 25–year term. The margin is 2%, and the index rate starts out at 8.5% and increases to 10% at the first adjustment. The balance of principal at the end of the first year is $74,113.56. Find the amount of interest owed for the first month of the first year. 13) _____

A) $674.79 B) $531.25

C) $656.25 D) None of the above is correct.

Solve the problem.

14) Complete the first month of the amortization schedule for the following fixed rate mortgage: 14) _____

Mortgage: $78,000
Interest rate: 8.5%
Term of loan: 15 years

Amortization Schedule

Payment Number	Total Payment	Interest Payment	Principal Payment	Balance of Principal
1	$768.10	(a) _____	(b) _____	(c) _____

A) (a) $552.50 (b) $243.80 (c) $77,756.20

B) (a) $552.50 (b) $215.60 (c) $77,784.40

C) (a) $539.39 (b) $228.70 (c) $77,771.30

D) (a) $552.50 (b) $215.60 (c) $77,447.50

The following problem involves adjustable–rate mortgage. You will need a table of monthly payments.

15) Suppose your mortgage is $55,400 for 25 years. The index rate is 7.5% and the margin is 2.5%. After three years, the Treasury index decreases to 6.5%. Using the adjusted balance of $53,896.88, find the new monthly payment. 15) _____

A) $503.42 B) $415.50

C) $469.54 D) None of the above is correct.

Find the APR (true annual interest rate), to the nearest half percent, for the following loan.

16) Amount Financed = $7200 16) _____
Finance Charge = $2230
Number of Monthly Payments = 60

A) 11.5% B) 12% C) 11% D) 10.5%

17) Amount Financed = $3400 17) _____
Finance Charge = $470
Number of Monthly Payments = 36

A) 8% B) 8.5% C) 9% D) 9.5%

18) Amount Financed = $1200 18) _____
Finance Charge = $90
Number of Monthly Payments = 12

A) 13.5% B) 12% C) 13% D) 12.5%

19) Amount Financed = $1200 19) _____
Finance Charge = $90
Number of Monthly Payments = 12
A) 12.5% B) 12% C) 13% D) 13.5%

20) Amount Financed = $7200 20) _____
Finance Charge = $2230
Number of Monthly Payments = 60
A) 10.5% B) 11.5% C) 12% D) 11%

21) Amount Financed = $2300 21) _____
Finance Charge = $260
Number of Monthly Payments = 24
A) 11.5% B) 10% C) 11% D) 10.5%

22) Amount Financed = $3400 22) _____
Finance Charge = $470
Number of Monthly Payments = 36
A) 8% B) 9.5% C) 8.5% D) 9%

23) Amount Financed = $7200 23) _____
Finance Charge = $2230
Number of Monthly Payments = 60
A) 12% B) 11.5% C) 11% D) 10.5%

24) Amount Financed = $2300 24) _____
Finance Charge = $260
Number of Monthly Payments = 24
A) 10% B) 10.5% C) 11.5% D) 11%

Find the APR (true annual interest rate), to the nearest half percent, for the following.

25) A homeowner installed a new swimming pool for $4000. He paid 8% down and then paid 36 monthly payments of $115.32. Determine the APR of the loan to the nearest one–half of a percent. 25) _____
A) 8.5% B) 8.0% C) 10.0% D) 9.0%

26) Amount financed: $7300 26) _____
Monthly payment: $188.67
Number of payments: 48
A) 11% B) 8% C) 12% D) 9%

27) A college student purchased a used car for $5000. He paid 15% down and then paid 18 monthly payments of $258.19. Determine the APR of the loan to the nearest one–half of a percent. 27) _____
A) 10.0% B) 12.5% C) 13.0% D) 11.5%

28) A student has a total of $4000 in student loans that will be paid with a 48–month installment loan with monthly payments of $98.59. Determine the APR of the loan to the nearest one–half of a percent. 28) _____
A) 8.0% B) 9.5% C) 7.5% D) 8.5%

29) A newlywed couple bought a washer and dryer for $800. They paid 10% down and then paid 12 monthly payments of $63.97. Determine the APR of the loan to the nearest one–half of a percent. 29) _____

A) 10.0% B) 8.5% C) 13.0% D) 12.0%

30) The owner of an automobile repair center purchased new electronic diagnostic equipment for $15,000. He paid 10% down and then paid 60 monthly payments of $296.91. Determine the APR of the loan to the nearest one–half of a percent. 30) _____

A) 10.0% B) 13.0% C) 11.5% D) 10.5%

31) Amount financed: $3200 31) _____
Monthly payment: $148.40
Number of payments: 24

A) 12% B) 14% C) 10.5% D) 9.5%

32) A college student purchased a used car for $4000. He paid 15% down and then paid 18 monthly payments of $206.55. Determine the APR of the loan to the nearest one–half of a percent. 32) _____

A) 11.5% B) 10.0% C) 12.5% D) 13.0%

33) Amount financed: $3600 33) _____
Monthly payment: $166.95
Number of payments: 24

A) 10.5% B) 12% C) 14% D) 9.5%

34) A student has a total of $3000 in student loans that will be paid with a 48–month installment loan with monthly payments of $73.94. Determine the APR of the loan to the nearest one–half of a percent. 34) _____

A) 7.5% B) 8.5% C) 9.5% D) 8.0%

Solve the problem.

35) An item is purchased for $2000 with a down payment of $500. There is a finance charge of $100. Find the monthly payment if 24 payments are made. 35) _____

A) $62.50 B) $66.67
C) $87.50 D) None of the above is correct.

36) An item is purchased for $5200 with a down payment of $1000. There is a finance charge of $1100. Find the monthly payment if 36 payments are made. 36) _____

A) $115.67 B) $175
C) $147.22 D) None of the above is correct.

37) An item is purchased for $10,000 with a down payment of $3000. There is a finance charge of $2000. Find the monthly payment if 60 payments are made. 37) _____

A) $200.00 B) $150.00
C) $116.67 D) None of the above is correct.

38) An item is purchased for $800 with a down payment of $50. There is a finance charge of $30. Find the monthly payment if 10 payments are made. 38) _____

A) $83 B) $78
C) $75 D) None of the above is correct.

39) An item is purchased for $2500 with a down payment of $500. There is a finance charge of $150. Find the monthly payment if 20 payments are made. 39) _____

A) $107.50 B) $100.00
C) $132.50 D) None of the above is correct.

40) An item is purchased for $10,000 with a down payment of $3000. There is a finance charge of $2000. Find the monthly payment if 60 payments are made. 40) _____

A) $116.67 B) $200.00
C) $150.00 D) None of the above is correct.

41) An item is purchased for $800 with a down payment of $50. There is a finance charge of $30. Find the monthly payment if 10 payments are made. 41) _____

A) $75 B) $78
C) $83 D) None of the above is correct.

42) An item is purchased for $2500 with a down payment of $500. There is a finance charge of $150. Find the monthly payment if 20 payments are made. 42) _____

A) $100.00 B) $107.50
C) $132.50 D) None of the above is correct.

43) An item is purchased for $2000 with a down payment of $500. There is a finance charge of $100. Find the monthly payment if 24 payments are made. 43) _____

A) $62.50 B) $66.67
C) $87.50 D) None of the above is correct.

44) An item is purchased for $5200 with a down payment of $1000. There is a finance charge of $1100. Find the monthly payment if 36 payments are made. 44) _____

A) $115.67 B) $175
C) $147.22 D) None of the above is correct.

Solve the problem. Use the Annual Percentage Rate Table if necessary.

45) Find the APR to the nearest half percent, for the following data. 45) _____

Purchase Price	Down Payment	Add–on Interest Rate	# of Payments
$5000	$500	5%	24

A) 9% B) 8.5% C) 9.5% D) 8%

46) Find the APR to the nearest half percent, for the following data. 46) _____

Purchase Price	Down Payment	Add–on Interest Rate	# of Payments
$7300	$2500	6%	12

A) 11.0% B) 11.5% C) 12.0% D) 10.5%

47) Find the APR to the nearest half percent, for the following data. 47) _____

Purchase Price	Down Payment	Add–on Interest Rate	# of Payments
$6500	$2950	5%	48

A) 8.5% B) 9.5% C) 10.0% D) 9.0%

48) Find the APR to the nearest half percent, for the following data. 48) _____

Purchase Price	Down Payment	Add-on Interest Rate	# of Payments
$3500	$500	7%	18

A) 14.0% B) 12.5% C) 12.0% D) 13.0%

49) Find the APR to the nearest half percent, for the following data. 49) _____

Purchase Price	Down Payment	Add-on Interest Rate	# of Payments
$6500	$2950	5%	48

A) 9.0% B) 8.5% C) 9.5% D) 10.0%

50) Find the APR to the nearest half percent, for the following data. 50) _____

Purchase Price	Down Payment	Add-on Interest Rate	# of Payments
$5000	$500	5%	24

A) 8.5% B) 9% C) 9.5% D) 8%

51) Find the APR to the nearest half percent, for the following data. 51) _____

Purchase Price	Down Payment	Add-on Interest Rate	# of Payments
$7300	$2500	6%	12

A) 12.0% B) 10.5% C) 11.5% D) 11.0%

52) Find the APR to the nearest half percent, for the following data. 52) _____

Purchase Price	Down Payment	Add-on Interest Rate	# of Payments
$3500	$500	7%	18

A) 13.0% B) 12.5% C) 12.0% D) 14.0%

53) Find the APR to the nearest half percent, for the following data. 53) _____

Purchase Price	Down Payment	Add-on Interest Rate	# of Payments
$7300	$2500	6%	12

A) 10.5% B) 11.0% C) 12.0% D) 11.5%

54) Find the APR to the nearest half percent, for the following data. 54) _____

Purchase Price	Down Payment	Add-on Interest Rate	# of Payments
$6500	$2950	5%	48

A) 8.5% B) 10.0% C) 9.0% D) 9.5%

Solve the problem. Round to the nearest cent.

55) On October 1, the unpaid balance in an account was $114. No payments were made that month. The finance charge rate was 1.4% per month of the average daily balance. Find the finance charge for the month of October. 55) _____

A) $1.60 B) $1.50 C) $1.46 D) $1.74

Solve the problem.

56) On the July 5 billing date, David had a balance due of $1027.85 on his credit card. The transactions during the following month were: 56) _____

July 6	Payment	$281.80
July 19	Charge: auto repair	$350
August 1	Charge: clothing	$122.27

The interest rate on the card is 1.3% per month. Using the average daily balance method, find the finance charge on August 5 (July has 31 days).

A) $11.89 B) $12.37 C) $12.41 D) $12.52

Find the finance charge on the open–end charge account. Assume interest is calculated on the unpaid balance of the account.

57) 57) _____

Unpaid Balance	Monthly Interest Rate
$912.60	1.39%

A) $12.69 B) $9.75 C) $8.12 D) $15.22

Solve the problem.

58) On the January 25 billing date, Vivian had a balance due of $315.06 on her credit card. The transactions during the following month were: 58) _____

January 26	Charge : curtains	$331
January 27	Payment	$132.62
February 16	Charge: tires	$206.81

The interest rate on the card is 1.1% per month. Using the average daily balance method, find the finance charge on February 25 (January has 31 days).

A) $6.23 B) $6.33 C) $6.28 D) $1.97

Solve the problem. Round to the nearest cent.

59) The unpaid balance in an account on December 1 was $174. A payment of $45 was made on December 18. The finance charge rate was 1.2% per month of the average daily balance. Find the finance charge for the month of December. 59) _____

A) $3.64 B) $1.84 C) $1.55 D) $1.74

Solve the problem.

60) The unpaid balance in an account at the beginning of December was $222. A payment of $70 was made on December 20. No new purchases were made in December. The finance charge rate was 1.1% per month of the average daily balance. Find the new balance at the end of December. 60) _____

A) $154.09 B) $154.14 C) $153.10 D) $173.44

61) Jerry's Bank charges 1.2% per month on the average daily balance as well as the following special fees. 61) _____

Cash advance fee: 2.5% {minimum of $2 and maximum of $10}

Late payment fee: $30

Over the credit limit fee: $35

One month Jerry was on vacation and did not get his account payment in on time and also went over the credit limit. He also used his card for 7 $150 cash advances. His average daily balance was $3200 for the month. Find the special fees which will be added to his account balance next month.

A) $61.25 B) $129.65 C) $77.60 D) $91.25

62) Annette has a bank card. Her billing date is July 4. The balance due at that date was $870. She sent a payment of $400, which the bank received on July 12. She made a new purchase for $200 on July 31. What will the finance charge be for August 4 if the bank charges 1.25% per month and uses the average daily balance method? 62) _____

A) $8.38 B) $10.88 C) $7.79 D) $7.49

63) Bill makes a $167.33 per month payment for 3 years to pay off a $4000 loan. What was the add–on interest rate? 63) _____

A) 10.3% B) 8.5%

C) 16.9% D) None of the above is correct.

64) The unpaid balance in an account on May 1 was $221. A purchase of $27 was made on May 8. A $80 payment was made on May 22. The finance charge rate was 1.25% per month of the average daily balance. Find the new balance at the end of May. 64) _____

A) $222.23 B) $142.19 C) $169.25 D) $170.70

65) Joe is buying some kitchen equipment for his new apartment. The total cost is $3400 and he places a down payment of $340. There is add–on interest of 9%. What is the total amount to be repaid if he takes 5 years to pay for the purchase? 65) _____

A) $3335.40 B) $4437.00

C) $140,760.00 D) None of the above is correct.

66) Jerry's Bank charges 1.3% per month on the average daily balance as well as the following special fees. 66) _____

Cash advance fee: 2.5% {minimum of $2 and maximum of $10}

Late payment fee: $30

Over the credit limit fee: $35

One month Jerry was on vacation and did not get his account payment in on time and also went over the credit limit. He also used his card for 7 $150 cash advances. His average daily balance was $3200 for the month. Find the total of all charges which will be on his account next month.

A) $120.25 B) $132.85 C) $102.85 D) $171.25

67) How many monthly payments of $100 are necessary to pay off a $2500 loan if the add–on interest rate is 8%? 67) _____

A) 30 payments B) 40 payments C) 36 payments D) 28 payments

68) Barb is buying a new car for $13,000. Her old car has a trade–in Value of $2500. The dealer informs her that the financing charge is 7% add–on interest. If she wishes to take 2 years to pay off the car, what will be the total amount to be repaid? 68) _____

A) $157,500.00 B) $14,820.00 C) $11,970.00 D) $11,235.00

69) Suppose Bank of Grayslake offers a credit card charging 1.4% per month of one's average daily balance and no annual fee. The Bank of Gurnee offers a credit card charging 1.25% per month and an annual fee of $X. What value of $X would make both cards the same if your average daily balance is usually $1200? 69) _____

A) $1.80 B) $4.90 C) $21.60 D) $23.80

70) Joe is buying some kitchen equipment for his new apartment. The total cost is $3700 and he places a down payment of $370. There is add–on interest of 9%. Find the total interest Joe will pay if it takes him 3 year(s) to pay for his purchase? 70) _____

A) $299.70 B) $89,910.00
C) $899.10 D) None of the above is correct.

71) On the April 25 billing date, Malcolm had a balance due of $1621.44 on his credit card. The transactions during the following month were: 71) _____

April 26	Payment	$173.60
April 30	Charge: lawnmower	$320.88
May 3	Charge: gift	$79.89
May 7	Charge: furniture	$519.76

The interest rate on the card is 1% per month. Using the average daily balance method, find the balance due on May 25 (April has 30 days).

A) $1642.35 B) $2389.28 C) $2389.83 D) $2384.58

72) On April 1, the unpaid balance in an account was $218. A payment of $30 was made on April 11. On April 21, a $40 purchase was made. The finance charge rate was 1.15% per month of the average daily balance. Find the new balance at the end of April. 72) _____

A) $220.28 B) $229.15 C) $230.43 D) $190.28

73) On the September 1 billing date, Martin had a balance due of $987.19 on his credit card. The transactions during the following month were: 73) _____

September 3	Payment	$93.30
September 9	Charge: airline ticket	$680.99
September 22	Charge: shoes	$75.97
September 29	Charge: garden tiller	$211.56

The interest rate on the card is 1.4% per month. Using the average daily balance method, find the finance charge on October 1 (September has 30 days).

A) $20.11 B) $24.13 C) $19.79 D) $20.30

Find the simple interest. The rate is an annual rate unless otherwise noted. Assume 365 days in a year and 30 days per month.

74) $8000 at 6% for $2\frac{1}{2}$ years 74) _____

A) $120.00 B) $1200.00 C) $192.00 D) $3333.33

75) $2950 at 4% for 1 years 75) _____

A) $118.00 B) $11,800.00 C) $737.50 D) $11.80

Solve the problem.

76) Use the rule of 70 to estimate the years to double for an annual inflation rate of 6%. 76) _____

A) 9 years B) 14 years C) 13 years D) 12 years

Find the simple interest. The rate is an annual rate unless otherwise noted. Assume 365 days in a year and 30 days per month.

77) $1660 at 6% for 4 months 77) _____

A) $3320.00 B) $398.40 C) $24.90 D) $33.20

Solve the problem. Assume that simple interest is being calculated in each case. Round the answer to the nearest cent unless otherwise indicated.

78) John Lee's savings account has a balance of $4610. After 21 months, what will the amount of interest be at 4.3% per year? 78) _____

A) $219.24 B) $219.52 C) $198.23 D) $346.90

Solve the problem.

79) $8791 is deposited into a savings account at 8% interest, compounded annually. To the nearest year, how long will it take for the account balance to reach $1,000,000? 79) _____

A) 86 years B) 43 years C) 62 years D) 55 years

Find the effective annual interest rate for the given nominal annual interest rate. Round your answers to the nearest 0.01%.

80) 5% compounded semiannually 80) _____

A) 5.12% B) 5.09% C) 5.06% D) 5.00%

Solve the problem. Assume that simple interest is being calculated in each case. Round the answer to the nearest cent unless otherwise indicated.

81) John forgot to pay his $408.00 income tax on time. The IRS charged a penalty of 5% for the 74 days the money was late. Find the penalty that was paid. (Use a 365 day year.) 81) _____

A) $4.08 B) $0.34 C) $412.14 D) $4.14

Solve the problem.

82) The 2006 price of a certain type of car is $24,700. Estimate the price of the same car in the year 2020. Assume a constant annual inflation rate of 2.2%. Give a number of significant figures consistent with the 2006 price given. 82) _____

A) $34,837.17 B) $33,497.28 C) $32,307.60 D) $32,157.39

Find the future value of the deposit if the account pays simple interest.

83) $2000 at 2.4% for 4 years 83) _____

A) $2192.00 B) $2187.20 C) $2240.00 D) $2101.05

Solve the problem.

84) Ellen invests her money in a savings account which compounds interest quarterly and which gives an effective annual yield of 4.18%. What is the nominal rate? 84) _____

A) 4.12% B) 4.14% C) 4.25% D) 4.09%

Find the present value for the given future amount. Round to the nearest cent.

85) A = $4000, 12 years 85) _____
r = 4% compounded semiannually

A) $6433.75 B) $1513.11 C) $2498.39 D) $2486.89

86) A = $12,400, 3 years 86) _____
r = 4% compounded annually

A) $13,948.31 B) $1376.45 C) $11,464.50 D) $11,023.55

Use the compound interest formula to compute the future value of the investment.

87) $19,000 at 1% compounded annually for 13 years 87) _____

A) $21,470.00 B) $21,409.68 C) $21,623.77 D) $21,280.00

Find the compound interest earned by the deposit. Round to the nearest cent.

88) $300 at 3% compounded quarterly for 3 years 88) _____

A) $27.00 B) $306.80 C) $28.14 D) $27.82

Solve the problem.

89) The average cost of a 4–year college education is projected to be $120,000 in 15 years. How much money should be invested now at 7.5%, compounded quarterly, to provide $120,000 in 15 years? 89) _____

A) $12,914.17 B) $90,816.95 C) $39,366.24 D) $120,000.00

Find the compound interest earned by the deposit. Round to the nearest cent.

90) $4100 at 2.9% compounded semiannually for 5 years 90) _____

A) $594.50 B) $630.00 C) $634.83 D) $306.00

Find the simple interest. The rate is an annual rate unless otherwise noted. Assume 365 days in a year and 30 days per month.

91) $800 at 8% for 8 years 91) _____

A) $51.20 B) $512.00 C) $800.00 D) $12.50

Use the compound interest formula to compute the future value of the investment.

92) $1100 at 1% compounded monthly for 12 months 92) _____

A) $1239.51 B) $1111.00 C) $1111.05 D) $1100.92

Answer Key
Testname: MTH_152_TEST4EXAMPLES_SHORTER

1) D
2) B
3) D
4) B
5) D
6) D
7) B
8) B
9) A
10) D
11) B
12) B
13) C
14) B
15) C
16) C
17) B
18) A
19) D
20) D
21) D
22) C
23) C
24) B
25) B
26) A
27) D
28) D
29) D
30) C
31) C
32) A
33) A
34) B
35) B
36) C
37) B
38) B
39) A
40) C
41) B
42) B
43) B
44) C
45) C
46) A
47) D
48) D
49) A
50) C
51) D
52) A
53) B
54) C
55) A
56) D
57) A
58) C
59) B
60) B
61) D
62) C
63) C
64) D
65) B
66) B
67) A
68) C
69) C
70) C
71) B
72) C
73) A
74) B
75) A
76) D
77) D
78) D
79) C
80) C
81) D
82) B
83) A
84) A
85) D
86) D
87) C
88) C
89) C
90) C
91) B
92) C