Consumer Math—Part 2 Examination

Comprehensive Examination for Lessons 4, 5, and 6

Please read these instructions before you begin to answer the questions that follow.

Write your answers and your work on this examination. When you are satisfied that your answers are correct, write them on the answer sheet found right after the exam. Then send the answer sheet only (not the exam itself) to Keystone National High School for grading. Attach separate paper for your work if necessary. Good Luck!

Short Answer: (worth 1 point each)

1. Dudley Greene's charge account statement shows an unpaid balance of $376.00. The monthly finance charge is 1.85 percent of the unpaid balance. What is the finance charge?

2. Destiny Paxton had a previous balance at Coffee Emporium of $59.27. She had payments and credits of $29.21. The finance charge is 1.75 percent of the unpaid balance. She also had $16.16 in new purchases. What is the new balance?

3. Use the following chart to find the average daily balance (new purchases included).

Dates	Payment	Purchase	End-of-Day Balance	x	Number of Days	Sum of Balances
3/1–3/9			$133.98	x	9	$1,205.82
3/10		$66.32	$200.30	x	1	$200.30
3/11–3/19			$200.30	x	9	$1,802.70
3/20	$175.00		$25.30	x	1	$25.30
3/21–3/31			$25.30	x	11	$278.30
				Total	31	

4. Kelly Sullivan's charge account statement showed a previous balance of $12,345.55, a finance charge of $22.72, new purchases of $12.50, and a payment of $8,010.00. What is her new balance?

5. Jay Field's bank granted him a single-payment loan of $6,800.00. He agreed to repay the loan in 91 days at an exact interest rate of 4.25 percent. What is the maturity value of the loan?

6. Adolfo Ramirez purchased a microwave and dishwasher for $897.00. He made an 18 percent down payment and financed the remainder. What amount did he finance?

7. Macon Steinberg purchased a motor scooter with an installment loan that has an APR of 16 percent. The motor scooter sells for $1,687.00. The store financing required a 20 percent down payment and 30 monthly payments. What was the finance charge?

Use the following chart to answer this question:

MONTHLY PAYMENT ON A $100.00 LOAN				
Term in Months	Annual Percentage Rate			
	15.00%	16.00%	17.00%	18.00%
6	$17.40	$17.45	$17.50	$17.55
12	$9.03	$9.07	$9.12	$9.17
18	$6.24	$6.29	$6.33	$6.38
24	$4.85	$4.90	$4.94	$4.99
30	$4.02	$4.07	$4.11	$4.16
36	$3.47	$3.52	$3.57	$3.62
42	$3.07	$3.12	$3.18	$3.23
48	$2.78	$2.83	$2.89	$2.94
54	$2.56	$2.61	$2.66	$2.72

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8. Brad Clark obtained a simple interest loan at 13 percent for 12 months. His previous balance was $619.00. What is the final payment if the loan is paid off with the next payment?

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9. Melinda Larson obtained a simple interest loan at 14.75 percent for 12 months. Her previous balance was $6,124.02. What is the amount of interest for the next payment?

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10. Josie Alvarez obtained a personal loan of $3,000.00 at 14 percent for 24 months. The monthly payment is $144.00. The balance of the loan after 18 months is $830.78. What is the new principal after the nineteenth payment?

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11. Susan Arnold obtained a 24-month loan for $850.00 to pay for a new computer. The bank's finance charge is $96.22. What is the APR?

Use the following chart to answer this question:

APR Term	10.00%	10.25%	10.50%	10.75%	11.00%	11.25%	11.50%	11.75%	12.00%	12.25%
	Finance Charge per $100.00 of Amount Financed									
6	$2.94	$3.01	$3.08	$3.16	$3.23	$3.31	$3.38	$3.45	$3.53	$3.60
12	$5.50	$5.64	$5.78	$5.92	$6.06	$6.20	$6.34	$6.48	$6.62	$6.76
18	$8.10	$8.31	$8.52	$8.73	$8.93	$9.14	$9.35	$9.56	$9.77	$9.98
24	$10.75	$11.02	$11.30	$11.58	$11.86	$12.14	$12.42	$12.70	$12.98	$13.26

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12. Brad Alexander sees a van advertised in the Sunday newspaper. The base price is \$24,000.82. The total for factory-installed options is \$3,027.00. The destination charge is \$200.00. What is the sticker price?

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13. Car dealer Tim Jones pays 86 percent of a car's base price of \$19,456.00, 93 percent of the options price of \$1,068.00, plus the destination charge of \$490.00. What is the dealer's cost?

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14. According to research Paul Monroe conducted on the Internet, the base price of a new car is \$18,844.00, the options total \$2,115.50, and the destination charge is \$635.00. He knows that the dealer paid about 97 percent of the base price and 96 percent of the total options. What should Paul estimate as the dealer's cost for the car?

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15. Nate Shermach found a two-year-old luxury car advertised for \$31,175.00. Its average retail value is \$30,850.00. It has aluminum alloy wheels valued at \$300.00 and a theft recovery system valued at \$75.00, but it does not have a CD player, which is valued at \$100.00. The car has been driven 47,005 miles. The used-vehicle guide indicates that if the car's mileage is between 46,000 and 51,000 miles, \$700.00 should be deducted. What is the average retail price for this vehicle?

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16. Molly Pierce's annual base premium is \$1,175.80 and her driver-rating factor is 1.5. What is her annual premium?

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17. For 100/300 bodily injury limits and \$100,000.00 property damage limits, Stephanie Ambrose's base premium is \$292.50. Her base premium is \$75.90 for \$50-deductible comprehensive insurance and \$225.79 for \$50-deductible collision insurance. What is Stephanie's annual base premium?

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18. For the past two years, Lynda Santana has recorded the costs of operating her car. The fixed costs totaled \$1,600.00 and the variable costs totaled \$2,134.00. She's driven a total of 14,000 miles. What was the cost per mile for her to operate her car?

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19. Chico Kahlo purchased a car 1 year ago for \$10,900.00. He drove it 13,890 miles and kept a record of his expenses. His variable costs were \$1,908.00. His fixed costs for insurance and license were \$800.00. He estimates the car's present value at \$8,652.00. What was Chico's cost per mile for him to operate his car?

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20. Enrico Alonso recently leased a new luxury car. His payments are $658.00 per month for 60 months. His deposit was $6,000.00. He paid a title fee of $105.00 and a license fee of $80.00. What is his total lease cost?

21. Rachel Perez rented a car for 3 days at $40.00 per day, plus $0.20 per mile. To protect herself in case of an accident, she purchased the collision waiver for $10.00 per day and paid $40.00 for gasoline to cover the 500 miles she drove. What was her total cost to rent the car?

22. Margaret Faso leased a car. She must pay 36 monthly payments of $545.00, a $4,000.00 deposit, a $100.00 title fee, and a $90.00 license fee. What is her total lease cost?

23. Jackie Kessel has found a home she would like to purchase and the seller accepts her offer of $210,900.00. If Jackie makes a down payment of 15 percent, what is the amount of her mortgage loan?

24. Jonathan and Marty Boman purchased a home for $113,400.00. As first-time homeowners, the bank only required a 5 percent down payment. They financed the rest at 6.5 percent for 30 years. What is the amount of their monthly payment?

Use the following chart to answer this question:

Monthly Payment for a $1,000.00 Loan			
Interest Rate	Length of Loan in Years		
	20	25	30
6.00%	$7.16	$6.44	$6.00
6.50%	$7.46	$6.75	$6.32
7.00%	$7.75	$7.07	$6.65
7.50%	$8.06	$7.39	$6.99
8.00%	$8.36	$7.72	$7.34
8.50%	$8.68	$8.05	$7.69

Use the chart from question 24 to answer questions 25 and 26.

25. Susan and Ronald Dugan agreed upon the price of $256,000.00 for their new home. They plan to make a 30 percent down payment and finance the rest at 7.5 percent for 20 years. What is the total amount to be paid on the loan?

26. Ruby Taylor and her husband decide to purchase a condominium rather than continuing to rent. They found a suitable property and the owner accepted their offer of $165,000.00. The mortgage company requires a 10 percent down payment for a 30-year loan at 6 percent. At the end of the 30 years, what will be the total amount of interest charged?

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27. Erin Thompson agreed to purchase a house for $97,900.00. Hoover Mortgage is willing to lend her money at 8 percent for 30 years provided Erin can make a down payment of $8,000.00. The total closing costs are 3 percent of the amount of the mortgage loan. What is the total of the closing costs?

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28. Michael Moore obtained a 30-year, $90,000.00 mortgage, with an interest rate of 8 percent. For his first payment, what is the amount of interest?

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29. Sue Gable obtained a mortgage loan for $189,600.00 at 7 percent for 25 years. Her monthly payment is $1,340.47. How much of the first payment is for principal?

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30. Amanda Wolpert's home in Richmond, Virginia, has an assessed value of $74,200.00. The tax rate where she lives is 25.13 mills. What is her annual real estate tax?

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31. Dawn Jent lives in Richmond, Virginia, where the rate of assessment is 80 percent and the tax rate is 25.13 mills. A tax assessor has determined that the market value of her home is $92,500.00. What is her real estate tax for 1 year?

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32. Jerry Flanigan's new home has an estimated replacement value of $215,000.00. He has insured his home for 80 percent of its replacement value. What is the amount of coverage on his home?

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33. Louise Ponce and her family own a vacation home on Lake Michigan. It is insured for 80 percent of its $150,000.00 replacement value. The home has a wood-frame construction and has been rated fire protection class 10. What is their annual insurance premium?

Use the following chart to answer this question:

Homeowners Insurance Premiums										
Annual Premiums for a Typical Homeowners Policy										
Amount of Insurance Coverage	Fire Protection Class									
	Brick / Masonry Veneer					Wood Frame				
	1 - 6	7 - 8	9	10	11	1 - 6	7 - 8	9	10	11
$40,000	$166	$170	$225	$237	$270	$178	$183	$237	$248	$285
$45,000	$173	$178	$233	$244	$280	$187	$191	$248	$260	$298
$50,000	$178	$183	$241	$254	$290	$190	$195	$254	$265	$304
$60,000	$191	$196	$259	$273	$313	$205	$211	$273	$287	$328
$70,000	$213	$216	$285	$299	$343	$225	$231	$299	$315	$360
$80,000	$241	$248	$328	$343	$394	$257	$265	$343	$363	$415
$90,000	$268	$276	$365	$384	$441	$289	$296	$384	$403	$464
$100,000	$298	$307	$407	$426	$490	$320	$329	$426	$449	$515
$120,000	$354	$364	$484	$508	$584	$381	$391	$508	$534	$614
$150,000	$459	$471	$625	$657	$755	$493	$506	$657	$692	$794
$200,000	$616	$633	$841	$884	$1,017	$662	$680	$884	$931	$1,070
$250,000	$737	$754	$961	$1,021	$1,167	$780	$798	$1,021	$1,086	$1,243
$300,000	$879	$901	$1,147	$1,218	$1,394	$931	$953	$1,218	$1,295	$1,483
$400,000	$1,021	$1,045	$1,331	$1,413	$1,617	$1,067	$1,105	$1,413	$1,504	$1,723
$500,000	$1,309	$1,340	$1,707	$1,812	$2,074	$1,385	$1,418	$1,812	$1,929	$2,209

34. Craig Allen is considering purchasing a new home. He estimates the following monthly housing expenses: $972.45 for his mortgage payment, $27.75 for his insurance premium, $95.25 for real estate taxes, $98.64 for electricity, $44.40 for telephone service, and $11.20 for water. What would be his total monthly housing cost?

35. Stanley McBride is employed by the True Blue Company. The PPO annual premium is $7,058.00. His employer pays 70 percent of the total cost. His contribution is deducted from his paycheck. What is Stanley's monthly deduction?

36. Marcus and Laketta Barlow are self-employed graphic designers. They pay 100 percent of a PPO insurance premium of $6,980.00 annually. They also have a dental plan that costs $670.00 annually and a vision plan that costs $322.00 annually. What is their total monthly premium for all their insurance?

37. Juanita Espinosa is single and has a health insurance plan with the benefits shown in the figure below. Her network health care costs over the last year included co-payments for 19 physician visits and 17 specialist visits. Following hospital surgery, she made co-payments for 20 physical therapy visits at $100.00 per visit, and she had 60 visits from a nurse at $50.00 each. Her hospital admission charge was $300.00 and her hospital bill was $14,597.00. What amount did she pay?

Health Care Benefits Schedule			
		Network	Non-Network*
Annual Deductible	Single	$375.00	$500.00
	Family	$800.00	$1,750.00
Hospital Charges	----	85%**	65%**
Home Health Care	First 50 visits	100%**	90%**
	Over 50	90%**	90%**
Co-insurance/Co-payment	Physician visit	$10.00	$12.00
	Specialist	$25.00	$30.00
	Physical Therapy		
	First 15 visits	$15.00	75%**
	Over 15 visits	80%**	70%**
	Emergency Room	$60.00	$50.00
	Ambulance	$30.00	$30.00
*Non-Network refers to a health care provider that doesn't have a contract with the health plan administrator.			
**Percentage of total cost that is covered by the health care company.			

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38. Carla Arslanian is 55 years old. She wants to purchase a $100,000.00, 10-year term life insurance policy. The premium per $1,000.00 is $8.95. What will her annual premium be?

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39. Keena Williams took out a $100,000.00, 5-year term life insurance policy at age 40. The premium per $1,000.00 was $3.56. She will be 45 years old this year. The premium per $1,000.00 will be $4.62. What is the percent increase?

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40. Marco Espinosa is 45 years old. He wants to purchase a limited payment policy valued at $125,000.00 until age 65. Use the chart to calculate his annual premium.

Annual Premiums per $1,000.00 of Life Insurance		
	Paid Up at Age 65	
Age	Male	Female
20	$11.75	$10.00
25	$13.50	$11.75
30	$16.75	$13.50
35	$22.00	$17.65
40	$28.50	$24.50
45	$38.75	$33.75
50	$56.75	$46.75
55	$57.00	$50.60

41. Abigail Simon has a health insurance plan with a $200.00 deductible. The plan covers 75 percent of her hospital charges. Abigail's recent health care costs include $250.00 in co-payments and a hospital bill of $12,300.00. What amount did she pay?

42. Karen Parsons has a whole life insurance policy that has an annual premium of $842.00. She wants to pay the premium semiannually. The semiannual premium is 51 percent of the annual premium. What will her semiannual payments be?

43. Matt Gilkey invested $45,000.00 in a 4-year certificate of deposit that earns interest at an annual rate of 5.25 percent compounded quarterly. The amount per $1.00 is 1.231994. What is the total interest earned?

44. Sabrina Duncan invested $20,000.00 in a 4-year certificate of deposit that earns interest at an annual rate of 7.5 percent compounded daily. The amount per $1.00 is 1.349817. What will the total amount at maturity be?

45. Ralph Kramer invested $11,000.00 in a certificate of deposit for 1 year. The certificate earns interest at an annual rate of 6.75 percent compounded daily. The amount per $1.00 is 1.069824. What is the effective annual yield?

46. Barry Olson purchased 800 shares of an electronics corporation stock at $42.17 per share. His online stockbroker charged him a $10.00 commission. What was the total cost for the stock?

47. Audrey Page purchased 2,500 shares of a discount corporation stock at $0.70 per share. Her stockbroker's commission was $22.75 for fewer than 1,000 shares, or $0.02 per share for 1,000 or more. What was the total cost for the stock?

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48. Bryant Peters bought 75 shares of Elkston stock at $24.13 per share. The company paid annual dividends of $0.29 per share. What was his total annual dividend?

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49. Devon Dyce bought 550 shares of stock for $28,275.50. He sold the stock for $52.25 per share and paid a sales commission of $32.00. What was the profit or loss from this sale?

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50. Maya Franklin purchased a $3,500.00 bond at the quoted price of $80\frac{1}{2}$. What was the cost of the bond?

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CONSUMER MATH MAILBACK ANSWER SHEET

Student's Name ______________________________ Student ID No. ____________________

Address ____

PART 2 Examination Answer Sheet

Write the correct answers and your work neatly and accurately on this answer sheet. Please write your name, address, and Student ID number at the top of this sheet. Then mail this answer sheet to Keystone National High School for grading. Use the envelopes supplied with your course and make sure you use the proper first-class postage on the envelope. (Please review the detailed mailing instructions found at the beginning of this course.)

Short Answer: (worth 1 point each)

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Please make a copy of your answer sheet before mailing it to Keystone National High School. Keystone National High School is not responsible for items lost in the mail. Mail back each exam as completed in one of the return envelopes provided at the end of this course.

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Congratulations! You have completed this course. Mail your exam in and start your next course while you wait for your grade.