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CONSUMER MATH FINAL EXAM REVIEW

- 1) Wanda works as an electrician with the Electric Company. She earns \$17.25 per hour with time and a half after 40 hours. If she works 44 hours Monday through Friday, how much will she earn? \$ 793.50

$$\begin{array}{r} 17.25 \\ \times 40 \\ \hline 690 \end{array}$$

$$17.25 \times 1.5 = 25.88 \times 4 = 103.5$$

- 2) Cassie earns \$7.28 per hour. She earns time and a half after 40 hours. She usually works 40 hours per week, but last week she worked an extra 8-hour shift. How much did she earn last week? \$ 378.56

$$40 \cdot 7.28$$

$$= 291.20$$

$$7.28 \times 1.5 = 10.92 \times 8 = 87.36$$

- 3) Peter sells computer parts. He receives a weekly salary of \$250 plus an 8% commission on all sales. His sales for the week total \$4,125. How much did he earn this week? \$ 580

$$250 + 330 = 580$$

$$4125 \times .08 = 330$$

- 4) What is the annual salary for someone who earns a bimonthly salary of \$927? \$ 24,102

$$927 \cdot 26 = 24,102$$

- 5) Jim earns an annual salary of \$72,400. What is his weekly salary? \$ 1392.31

$$52 \overline{) 72,400} = 1392.31$$

	Gross Pay	Federal Tax	State Tax	Soc. Sec. Tax	Medicare	Health Insurance	Total Deductions	Net Pay
6)	\$712	\$108.70	\$35.69	\$44.09	\$10.31	\$49.37	\$ 248.16	\$ 463.84
7)	\$412	\$46.54	\$20.06	\$25.55	\$5.97	\$27.19	\$ 125.31	\$ 286.69

- 8) Sasha goes to buy groceries. She buys 2 packages of corn (99¢ per package), 3 gallons of milk (\$3.90 per gallon), and a loaf of bread (\$1.29). She gives the clerk \$20.00 for her purchases. How much change does Sasha get back?

$$20 - 14.97$$

$$= 5.03$$

$$2 \cdot 99 = 1.98$$

$$3 \cdot 3.90 = 11.70 + 1.29 = 14.97$$

- 9) Gabe has a 40¢-off coupon for any kind of popcorn. He can choose between 16 ounces of Happy Popcorn for \$1.39 or 34 ounces of Popper Popcorn for \$2.79. Using the coupon, which brand of popcorn is the better buy per ounce?

$$\begin{array}{l} 16 - \$1.39 \\ 34 - \$2.79 \end{array}$$

Popper popcorn

- 10) The local department store is having their annual 25%-off sale. The

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regular prices for these purchases are: dress (\$64.99), shoes (\$46.00), coat (\$149.98), and purse (\$59.00). Find the total price for these purchases.

\$ 319.97

11) What would be the total price of #10 with 5% sales tax?

\$ 335.97

Denim Shirt

Soft 100% cotton denim shirt. Prewashed for a relaxed fit. Chest pocket, stitching, long sleeves, two-button cuffs. Machine wash. Made in USA. Colors: Light Indigo, Dark Indigo, Washed Gold, Smoke Gray, Dusty Red.

DSM9426	Men's Sizes S34-36, M38-40, L42-44, XL46-48	\$32.50
DSW9427	Women's Sizes S6-8, M10-12, L14-16, XL18-20	\$28.50

Shipping & Handling

Total Price

\$0-\$30	\$4.75
\$30.01-\$70	\$5.95
Over \$70	\$6.85
Next Day	Add \$6.00

12) Devin orders a men's shirt size L and a women's shirt size M. He adds shipping and handling charges and 6% sales tax. What is the total cost of his order? There is no tax on shipping and handling, only on the clothing.

32.50
28.50

\$ 66.95

13) Melissa orders three size L women's shirts in Dark Indigo, Washed Gold, and Dusty Red. She adds shipping and handling. No sales tax is charged. What is the total cost of her order?

\$ 61.95
+ 1.40

$3 \cdot 28.50 = 85.50 + 6.85$

\$ 92.35

14) A dress normally sells for \$35.85. How much does the dress cost after a 15% discount??

$35.85 \times .15$

$35.85 - 5.38$

\$ 30.47

15) Amy's income is \$788 every two weeks. Use the renter's rule (one week pay = one month rent) to compute the most Amy should spend for rent each month.

$2\sqrt{788}$

\$ 394

16) If Amy pays \$385 for rent each month, what is her total rent paid in one year?

385×12

\$ 4620

17) Mr. Morris earns \$35,000 per year and plans to buy a house. Use the banker's rule (2.5 times yearly salary) to determine his maximum allowable mortgage.

$35,000 \times 2.5$

\$ 87,500

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- 18) Joyce wants to buy a house for \$129,500 with a 20% down payment. How much will her down payment be? \$ 25,900
- 19) What is the amount of the mortgage for Joyce's house in #18? \$ 103,600
 $129,500 - 25,900$
- 20) Amanda buys a new car whose base price is \$8,380. She orders an CD player for \$185 and an automatic transmission for \$575. She pays \$422 for transportation and handling. What is the total price? \$ 9562
- 21) Determine the actual cost, including interest of a \$3,670 used car with a down payment of \$200 and 48 monthly payments of \$78 each. \$ 3944
 $48 \cdot 78 = 3744 + 200 = 3944$

Monthly Payments per \$1000							
Years	7%	8%	9%	10%	11%	12%	13%
15	\$8.99	\$9.56	\$10.14	\$10.75	\$11.37	\$12.00	\$12.65
20	\$7.75	\$8.36	\$9.00	\$9.65	\$10.32	\$11.01	\$11.72
25	\$7.07	\$7.72	\$8.39	\$9.09	\$9.80	\$10.53	\$11.28
30	\$6.65	\$7.34	\$8.05	\$8.78	\$9.52	\$10.29	\$11.06
35	\$6.39	\$7.10	\$7.84	\$8.60	\$9.37	\$10.16	\$10.95
40	\$6.21	\$6.95	\$7.71	\$8.49	\$9.28	\$10.08	\$10.90

Directions: Use the above table for problems 22 and 23.

- 22) What is the monthly payment on a 9% 30-year mortgage for \$75,000? \$ 603.75

$$\begin{array}{r} 8.05 \\ \times 75 \\ \hline \end{array}$$

$$\begin{array}{r} 8.05 \\ \times 75 \\ \hline \end{array}$$
- 23) Compute the total amount repaid on a mortgage for \$72,000 at 8% for 30 years. \$ 19,0252.80

$$\begin{array}{r} 7.34 \\ \times 72 \\ \hline \end{array}$$

$$528.46 \times 12 = 6341.76 \times 30$$
- 24) How long will it take to drive 286 miles at an average speed of 55 miles per hour? 5.2 hours

$$55 \overline{) 286}$$

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- 25) Hillary works as a waitress and records the amount she makes in tips each night. Find the mean for the set of data:

53, 75, 61, 68, 85, 75, 72, 88, 62

$$\frac{53 + 75 + 61 + 68 + 85 + 75 + 72 + 88 + 62}{9} = 72$$

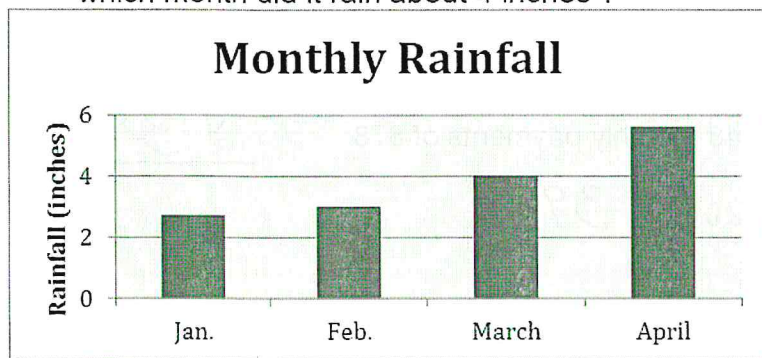
63

- 26) Find the median of the set of data in Question 25.

53, 61, 62, 68, 72, 75, 75, 85, 88

72

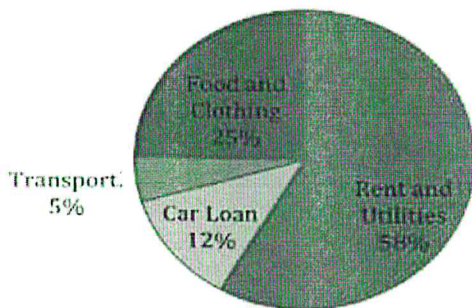
- 27) The bar graph shows the monthly rainfall during four months of the year. In which month did it rain about 4 inches?



March

- 28) Use the circle graph to answer. Arlene's monthly net income is \$1,115. Calculate how much income is spent on rent & utilities?

Arlene's Budget



$$\frac{1115}{100} \times 58 = 646.70$$

\$646.70

- 29) Bess puts a \$690 camcorder on layaway. She is required to make a 30% deposit. How much will Bess have to pay to get her camcorder out of layaway?

$$690 \times 0.30 = 207$$

\$207

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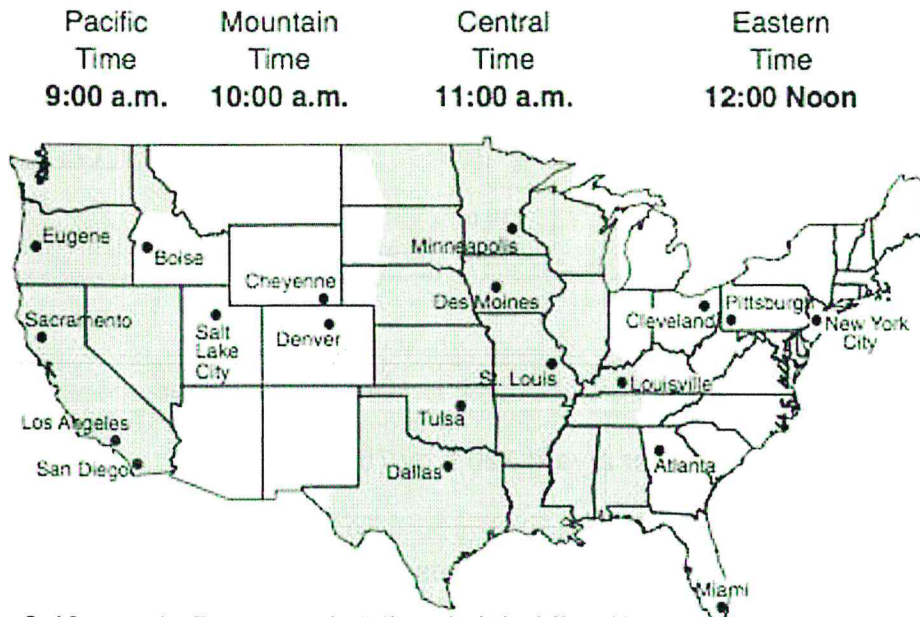
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Single	\$59.50	Single	\$79.50
Double	\$67.50	Double	\$87.50
Suite	\$170.50	Suite	\$190.50

37) Two friends go to the beach from July 7 to July 11. The one-way bus fare is \$32.45 per person. Find the cost per person to stay at the inn and round trip bus fare for this trip. Assume they get a double room and split the cost. _____

Use the time zone map below for problems 38 – 40.



38) If it is 2:40 p.m. in Denver, what time is it in Miami?

4:40 pm

39) If it is 3:20 a.m. in Miami, what time is it in San Diego?

12:20 am

40) If a flight departs from Minneapolis at 9:50 a.m. and arrives in Los Angeles at 11:45 a.m., how long is the flight?

7-50

3 hrs. 55 min.

41) Antonio wants to rent a compact car for 9 days. Ace rents these cars for \$48 per day and \$312 per week. Compute the cost of each plan for him. Which plan is more economical? _____

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42) Find the balance forward.

Balance forward	\$395.18
Deposit	\$100.00
Check #114	\$201.12
ATM withdrawal	\$40.00
Check #115	\$84.69

\$169.37

43) Art deposited 10 - \$20 bills, 7 - \$5 bills, 40 quarters, 25 nickels, and a check for \$38.50. Find the amount of his deposit.

\$282.75

$200 + 35 + 0 + 1.25 + 38.50$

44) The balance on Rochelle's charge account is \$243.96. When the bill comes, she makes a \$50.00 payment. The interest rate is 1.5% on the unpaid balance. If she does not make any additional charges, what will her new balance be next month?

\$196.87

$243.96 - 50 = 193.96 \times 1.015$

45) Cynthia drives 522.5 miles in 9 hours and 30 minutes. What is her average speed?

55.17

46) If gas costs \$1.79 per gallon, what is the cost to fill a 19-gallon tank?

\$34.01

47) Find the total lease cost of the following vehicle:

Luxury Car
 Pays \$475 per month for 48 months
 Deposit of \$475
 Title Fee of \$65
 License Fee of \$85

\$23,425

48) Gina rented a car for 3 days at \$35 per day plus \$0.20 per mile. She took the collision waiver for \$9.95 per day. She drove the car 652 miles. Gasoline cost \$57. What was the total cost for renting the car (to the nearest cent)?

$\$105 + (652 \cdot 0.20) + 29.85 + 57$
 130.4

\$322.25

49) Kelly's car has an EPA rating of 45 mpg. If gas costs \$1.76 per gallon, how much will she spend for a 550 mile trip?

\$21.51

$45 \overline{) 550} \rightarrow 12.22$
 12.22×1.76

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50) Barb's car needs new brakes. They cost \$450. It will take $3\frac{1}{2}$ hours at \$65 per hour to replace them. There will be a 6% sales tax on the brakes, not labor. What will her total bill be?

\$718.15

$$227.50 + 450 = 677.50 \times .06$$

51) Refer to the premium table below. Joan wants to buy a 20/40/10 liability insurance policy. How much will the total premium be if she lives in an average risk area?

336 + 69

\$405

Area	Liability Insurance Premiums							
	Personal Injury				Property Damage			
	10/20	20/40	40/80	75/150	5	10	25	50
High Risk	\$210	\$470	\$610	\$835	\$72	\$84	\$99	\$148
Average	\$167	\$339	\$470	\$620	\$56	\$69	\$77	\$98
Low Risk	\$140	\$229	\$340	\$489	\$48	\$52	\$61	\$73

52) Fill in the following chart

	How often do you get paid?	How many times a year do you get paid?
Weekly	1 time a week	52
Biweekly	every 2 weeks	$2\sqrt{52} = 26$
Semi-Monthly	every 2 pays	24
Bimonthly	every 2 weeks	26
Monthly	1 time per month	12

53) Based on the chart above, if you earn \$5,995.83 bimonthly, how much do you earn ANNUALLY?

~~\$119,916.66~~

~~\$119,916.66~~ \$155,891.58

54) Find the Mean, Median, Mode, and Range for the line plot below.

mean: 8.3

median: 9

mode: 11

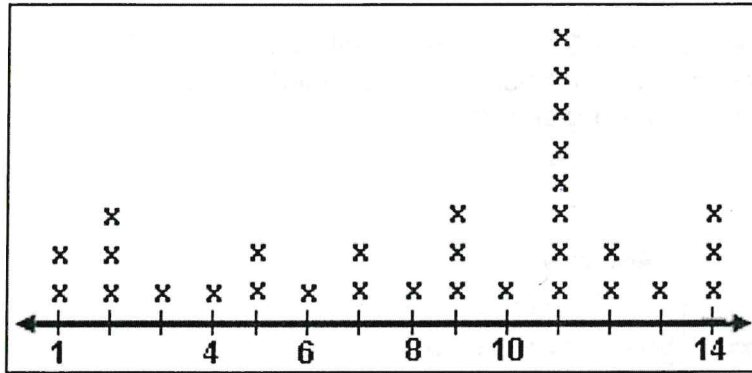
Range: $14 - 1 = 13$

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Apple Bags Sold at a Food Mart



Weight of Apple Bags (in lbs)

11 222 3 4 55 6 77 8 9 9 10 11 11 11 11 11 11 11 11 12 12 13 14 14 14
 ↑ 31 [257] (31)

55) You are booking a vacation at the The Dunes Motel, in Ocean City, MD. You are planning on getting an Oceanside Efficiency room for 4 nights, at \$185 per night. You are also planning on getting Daily Bus passes each day to get around. A daily bus pass is \$3. What will the total cost be for both the hotel and the daily bus passes?

$$4 \cdot 185 = 740 \quad 4 \cdot 3 = 12 \quad = \text{\$ } 752$$

56) In words, explain what *Banker's Rule* and *Renter's Rule* are.

Annual times 2.5 1/4 of your monthly income

57) Tom works full time as a waiter at the local Applebee's. He earns \$4.75 per hour plus tips. He made \$470 in tips one week and \$501 in tips the next week. How much will Tom have earned after 2 weeks

40 hrs a week

$$80 \cdot 4.75 = 380 + 470 + 501 = \text{\$ } 1351$$

58) You are going to buy a new Vizio 32 inch E- series at Best Buy. The original price is \$239.99, but Best Buy is currently having a 15% off sale. How much will the TV cost after the discount and with a 7% sales tax?

$$\begin{array}{r} 239.99 \\ - 35.99 \\ \hline 203.99 \\ \times .07 \\ \hline 14.2793 \end{array}$$

\$ 218.27

Use the tax table below for problems 59-61.

	Filing Status	Taxable Income	Tax Due
59)	Single	\$45,150	\$ 7223

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60) Married, filing jointly

\$45,225

\$ 5891

61) Tianna's taxable income is \$45,278. Her employer withheld \$7,646 for the year. Determine the amount to be refunded or the balance due. Tianna is married, filing separately.

Circle one:
Refund
Balance Due

If line 43 (taxable income) is—		And you are—			
At least	But less than	Single	Married filing jointly *	Married filing separately	Head of a household
Your tax is—					
45,000					
45,000	45,050	7,185	5,861	7,185	6,116
45,050	45,100	7,198	5,869	7,198	6,124
45,100	45,150	7,210	5,876	7,210	6,131
45,150	45,200	7,223	5,884	7,223	6,139
45,200	45,250	7,235	5,891	7,235	6,146
45,250	45,300	7,248	5,899	7,248	6,154
45,300	45,350	7,260	5,906	7,260	6,161
45,350	45,400	7,273	5,914	7,273	6,169
45,400	45,450	7,285	5,921	7,285	6,176
45,450	45,500	7,298	5,929	7,298	6,184
45,500	45,550	7,310	5,936	7,310	6,191
45,550	45,600	7,323	5,944	7,323	6,199
45,600	45,650	7,335	5,951	7,335	6,206
45,650	45,700	7,348	5,959	7,348	6,214
45,700	45,750	7,360	5,966	7,360	6,221
45,750	45,800	7,373	5,974	7,373	6,229
45,800	45,850	7,385	5,981	7,385	6,236
45,850	45,900	7,398	5,989	7,398	6,244
45,900	45,950	7,410	5,996	7,410	6,251
45,950	46,000	7,423	6,004	7,423	6,259

7646
7246

\$ 398