
Renting an Apartment

Margo is about to rent her first apartment. She has estimated that she can spend up to \$7,800 a year for the monthly rent. The following problems describe the things that she had to consider when trying to decide what apartment would be the best for her.

Part I

1. The manager of the Apex apartment complex showed Margo a two-bedroom apartment that costs \$700 a month. What is the yearly amount for the rent? Based on her budget, can she afford to live there?
2. Margo saw a small apartment on the shore that she really liked. The rent was \$680 a month. The landlord said that she could share the apartment with a friend. They would each pay an even amount of the rent. Show your work and explain your answer. What would she pay for rent by the end of the year? Could Margo afford this apartment if she shared it?
3. Margo found an apartment near her job that costs \$625.55 a month. It was a large space with two full baths and two bedrooms. She really liked it. What is the yearly amount of rent for this apartment? Can she afford this place?
4. Which two apartments described above can Margo afford? By the end of the first year, how much more would she have paid for the more expensive of the two apartments?
5. If the most she can pay is \$7,800 per year, what is the most she can pay as her monthly rent? What multiplication problem could be used to solve this problem?
6. What division problem could be used to solve problem #5?



Renting an Apartment *(cont.)*

Part II

Margo spends 15% of her monthly income (\$4,500) on food and entertainment. Calculate the expense of each item and put a check next to the statement that says whether she can afford it.

1. Margo's friends eat dinner at a local restaurant twice a month. Her portion of the bill comes to \$15.00. Can she afford to eat with them at the restaurant twice a month? How much will she have spent on this item by the end of the year?

Yes, she can afford it. No, she can not afford it. Amount spent: _____

2. Her friends go to see a movie twice a month. Each person pays \$12.00 for the movie, parking, and refreshments. Can she afford to go to the movie twice a month? How much will she spend on the movies by the end of the year?

Yes, she can afford it. No, she can not afford it. Amount spent: _____

Part III

Margo breaks up her monthly income (\$4,500) into various percentages in order to get the things that she needs and wants.

1. If she saved \$225.00 each month for 14 months, how much money would she have at the end of 14 months? _____

2. If she saved \$225.00 each month for two years, how much would she save? _____

3. She earned \$125.00 from her stock and her accountant assured her that the stock would grow by 20% over the next year. Over the next year, how much will she earn from her stock?

4. In January Margo started taking karate lessons. She paid an initial fee of \$200.00 and \$60.00 per month. How much would she have paid at the end of the year? _____

5. The karate school gave all of its new students one month free for paying for the full year in advance. If Margo paid for the full the year in advance, how much would she save over the month-by-month price if the initial fee was still included? _____



Renting an Apartment *(cont.)*

Part IV

Margo's monthly bills are listed in the table below. Assuming that she spends about the same amount each month, calculate the yearly amount that she spends for each item. Then calculate the amount of money that she spent each day by talking on the telephone. The price per minute varies according to the time of day that she called.

Monthly Expenses

Bills (monthly)		Yearly Amount Paid
Electric Company	\$12.00	
Water Company	\$18.00	
Gas Company	\$30.00	
Master 1 Credit Card	\$15.00	
Apex Credit Card	\$20.00	

Telephone Talk

Day of the Week	Minutes and Price Per Minute	Total Price
Sunday	31 min. @ \$.22	
Monday	29 min. @ \$.18	
Tuesday	14 min. @ \$.18	
Wednesday	20 min. @ \$.12	
Thursday	17 min. @ \$.09	
Friday	19 min. @ \$.15	
Saturday	20 min. @ \$.12	



Answer Key (cont.)

Pages 29–31

Part I

- \$8,400; no
- \$4,080; yes
- \$7,506.60; yes
- #2 and #3; \$554.40
- \$650.00
- $\$7,800/12 = \$650 \times 12 =$

Part II

15% of her income is \$675

- \$360.00 Yes
- \$288.00 Yes

Part III

- \$3,150
- \$5,400
- \$25.00
- $(\$60.00 \times 12) + 200 =$
\$920.00
- \$60.00

Part IV

Bills	Yearly Amount Paid
Electricity	\$144
Water	\$216
Gas	\$360
Master 1 Credit Card	\$180
Apex Credit Card	\$240

Day	Total Price
Sunday	\$6.82
Monday	\$5.22
Tuesday	\$2.52
Wednesday	\$2.40
Thursday	\$1.53
Friday	\$2.85
Saturday	\$2.40

Pages 33 and 34

Part I

- 91 cm
- 182 cm
- 14,884 cm²

- 610 cm²
- Added all the sides up.

Part II

- 58.5 meters
- \$2,304
- Answers will vary.
- Road 1 = 10 kilometers,
Road 2 = 6.5 kilometers
- 8.25

Pages 35–38

Part I

- 36 meters
- 144 meters
- \$1,440
- Answers will vary.

Part II

- 38 cm
- 1.14 meters
- 15.24 cm
- 45.7 cm
- 91.4 cm

Part III

- 134 meters; answers will vary.
- \$6,160
- \$5,544
- 3 meters
- Answers will vary.

Part IV

- 696.7 sq. meters
- 30 min.
- 1,045 m²
- 787.50 min.
- Answers will vary.
- 75 bags

Pages 40 and 41

Part I

- $250 - 150 = x, x = 100$
- $300 - 219 = x, 81 = x$
- $(600 + 120)/12 = x, x = 60$
- $5,000 - 3,500 = x, x = 1,500$

Part II

- $2,000/5 = x$ or $5x = 2,000,$
 $x = 400$
- $40x = 240, x = 6$
- $20x = 120, x = 6$

Pages 42–45

Part I

- $72,450 - 65,000 = x,$
 $x = 7,450$
- $76,000 - 63,980 = x,$
 $x = 12,020$
- $400/20 = x, 20 = x$

Part II

- $8(5) + 4 = x, x = 44$
- $8(5) + (4 + 5) = x, x = 49$
- $40 + x = 47, x = 7$
- $40 = x + 50, x = 10$
- $40 + 4 + x = 48, x = 4$

Part III

- $60x = 150, x = 2.5$ hour
- $60x = 480, x = 8$
- $14,200 - 2,000 = x,$
 $12,200 = x$
- $11,000 - x = 2,200,$
 $x = 8,800$

Part IV

- May, $3,000x = 15,000, x = 5$
- June, $15,000/2,500 = x, x = 6$
- $15,000 + 12,000 = x,$
 $27,000 = x$
- $500(12) = x, x = 6,000$
- Answers will vary.

Pages 47 and 48

Part I

- 2:16, 2/16, 0.125
- 7:2, 7/2, 3.5
- 18:7, 18/7, 2.57
- 9:16, 9/16, 0.56
- 14:50
- 32:50

Part II

- 2/\$80
- 1/\$40
- 9:18
- 6:16
- Answers will vary.