

Name \_\_\_\_\_ Date \_\_\_\_\_

## 11 Estate Taxes

Local governments collect **real estate taxes**. The taxes are used to pay for municipal services and schools. The real estate tax is based on the assessed valuation of a property. The **assessed valuation** is a percent of the property's **market value**. The tax rate is an amount per \$100 of assessed valuation.

**Example 1:** The market value of your property is \$88,700. The assessment rate is 70%. What is the assessed valuation? If the real estate tax rate is \$4.29 per \$100, what is your annual real estate tax?

$$\text{Assessed Valuation} = \text{Assessment Rate} \times \text{Market Value}$$

**Step 1** Multiply to find the assessed valuation.

(**THINK:** 70% = 0.7)

$$0.7 \times \$88,700 = \$62,090$$

The assessed valuation of your property is \$62,090.

**Step 2** Divide to find the number of \$100 of assessed valuation.

$$\$62,090 \div \$100 = 620.9$$

**Step 3** Multiply to find the real estate tax.

$$620.9 \times \$4.29 = \$2,663.661$$

Your annual real estate tax is \$2,663.66.

Many people pay  $\frac{1}{12}$  of their annual real estate tax with their monthly mortgage payment. The bank then pays the taxes when they are due.

**Example 2:** Your monthly mortgage payment is \$487. Your annual real estate tax is \$2,663.66. Assuming you have agreed to have the bank include a portion of your taxes as part of your monthly mortgage payment, what is your combined "P.I.T." (principal, interest, and taxes) monthly payment to the bank?

**Step 1** Divide to find the monthly tax payment.

$$\$2,663.66 \div 12 = \$221.97166 \approx \$221.97$$

**Step 2** Add to find the combined "P.I.T." payment.

$$\$221.97 + \$487 = \$708.97$$

Your combined PIT payment is \$708.97.

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**Think About It**

1. Why might the tax rate in a town increase?

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2. How could a bank earn money for itself by collecting  $\frac{1}{12}$  of the real estate taxes each month and holding the money until the tax payment is due?

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**Practice**

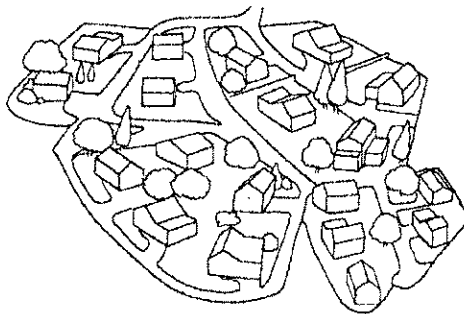
*Remember to estimate whenever you use your calculator.*

Find the assessed valuation.

Market Value	\$95,000	\$118,000	\$172,900	\$287,300	\$398,450
Assessment rate	80%	75%	100%	45%	78%
Assessed valuation	1. _____	2. _____	3. _____	4. _____	5. _____

Find the annual real estate tax.

Assessed valuation	\$64,300	\$51,700	\$39,200	\$80,400	\$107,650
Tax rate per \$100	\$3.72	\$4.06	\$5.04	\$2.89	\$4.87
Annual real estate tax	6. _____	7. _____	8. _____	9. _____	10. _____



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1 the combined monthly payment to the bank.

Monthly mortgage payment	\$413	\$397	\$516	\$471	\$507
Annual real estate tax	\$3,696	\$5,124	\$4,344	\$3,708	\$5,256
Combined monthly payment	11. _____	12. _____	13. _____	14. _____	15. _____

Solve.

16. The market value of Sara's house is \$125,000. The assessment rate is 70%. What is the assessed valuation? \_\_\_\_\_
17. The market value of Tony's house is \$95,000. The assessment rate is 55%. What is the assessed valuation? \_\_\_\_\_
18. The market value of Rudy's house is \$135,000. The assessment rate is 65%. The real estate tax rate is \$3.29 per \$100. What is the assessed valuation and his annual real estate tax? \_\_\_\_\_
19. The market value of Kathy's house is \$89,900. The assessment rate is 80%. The real estate tax rate is \$4.23 per \$100. What is the assessed valuation and her annual real estate tax? \_\_\_\_\_
20. Rudy's monthly mortgage payment is \$564. Use your answer to Exercise 18 to find his combined monthly payment to the bank. \_\_\_\_\_
21. Kathy's monthly mortgage payment is \$459. Use your answer to Exercise 19 to find her combined monthly payment to the bank. \_\_\_\_\_

**Extension**

**Determining Tax Rate**

Solve the following problem.

1. The average house in a town has a market value of \$100,000. The assessment rate is 80% (\$80,000 assessed valuation) and the tax rate is \$4.00 per \$100 (\$3,200 annual taxes). The town is going to change to an assessment rate of 100% (or, roughly, market value), but they still want to collect roughly \$3,200 annually from the average house. What should the new tax rate be, per \$100 of value? How did you solve the problem?

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in value because of its location, its commuting distance to a city, its nearness to various attractions, and the state of the economy. Houses depreciate due to factors affecting the overall economy.

**More Practice**

1. \$47,338.20
2. \$193,385.36
3. \$187,550
4. \$199,517.76
5. \$353,394.14
6. \$99,497.44
7. \$418,500
8. 15%
9. \$525,706.25
10. \$137,200

**Extension**

1. Ed's house
2. \$17,675.49

**Pages 93-94**

**Think About It**

1. Condominiums tend to be less expensive, and their taxes tend to be less, as well.
2. Assessments of needed maintenance can unexpectedly add thousands of dollars to a condo-dweller's expenses.

**Practice**

1. \$35,600, \$1,253.76
2. \$50,000, \$1,623.64
3. \$3,500, \$798.56
4. \$3,500
5. \$4,464.29
6. \$7,857.14
7. \$9,928.57

8. \$12,678.57
9. \$14,285.71
10. \$37,520; \$1249.80
11. \$35,000; \$1,029.55
12. about \$3,400

**Extension**

1. In 2 years, maintenance fees will be \$210.
2. In 2 years, the monthly payment will be \$1,444.47.

**Pages 96-98**

**Think About It**

1. The monthly payment per \$1,000 for 11% (\$9.53) is about \$0.80 more than for 10% (\$8.78). You can mentally multiply  $50 \times 0.80$  to get \$40 extra per month at 11%.

**Practice**

1. \$1,326.75
2. \$995.68
3. \$1,575.20
4. \$939.75
5. \$876.66
6. \$24,800
7. \$99,200
8. \$907.68
9. \$8,970
10. \$80,730
11. \$779.85
12. \$28,086
13. \$65,534
14. \$642.89
15. \$11,976
16. \$67,864
17. \$570.74
18. \$2,160
19. \$1,720
20. \$5,395
21. \$3,361.25

22. \$3,876.25
23. \$37,800
24. \$151,200
25. \$858.82
26. \$28,970
27. \$260,730
28. \$1,720.82
29. \$117,900
30. \$275,100
31. \$1,771.64
32. \$119,750
33. \$359,250
34. \$2,270.46

**Extension**

- |               |               |
|---------------|---------------|
| 1. \$778.65   | 2. \$643.86   |
| 3. \$1,267.20 | 4. \$980.00   |
| 5. \$693.12   | 6. \$834.62   |
| 7. \$1,627.08 | 8. \$1,829.42 |
| 9. \$2,040.54 | 10. \$592     |

**Pages 100-102**  
**Think About It**

*Real Estate Taxes*

1. Tax rate increases when costs increase, or when a locality loses property from its tax rolls.
2. Banks earn interest on the money they hold until taxes are paid.

**Practice**

- |                          |                |
|--------------------------|----------------|
| 1. \$76,000              | 2. \$88,500    |
| 3. \$172,900             | 4. \$129,285   |
| 5. \$310,791             | 6. \$2,391.96  |
| 7. \$2,099.02            | 8. \$1,975.68  |
| 9. \$2,323.56            | 10. \$5,242.56 |
| 11. \$721                | 12. \$824      |
| 13. \$878                | 14. \$780      |
| 15. \$945                | 16. \$87,500   |
| 17. \$52,250             |                |
| 18. \$87,750; \$2,886.98 |                |
| 19. \$71,920; \$3,042.22 |                |
| 20. \$804.58             | 21. \$712.52   |

**Extension**

- The new assessed valuation for a \$100,000 house is \$100,000. The annual tax on this house is \$3,200.  $\$3,200 \div \$100,000 = 0.032$ , or \$3.20 per \$100.

**Pages 104-106****Think About It**

- Renters don't have a mortgage and aren't required to carry insurance, so they may assume that the apartment complex has insurance covering the building.
- Losses due to theft or fire can be costly to replace.

**Practice**

- |               |                |
|---------------|----------------|
| 1. \$7,800    | 2. \$39,000    |
| 3. \$15,600   | 4. \$3,900     |
| 5. \$10,950   | 6. \$54,750    |
| 7. \$21,900   | 8. \$5,475     |
| 9. \$8,764.50 | 10. \$43,822   |
| 11. \$17,529  | 12. \$4,382.25 |
| 13. \$2,500   | 14. \$5,000    |
| 15. \$5,000   | 16. \$10,000   |
| 17. \$7,500   | 18. \$15,000   |

**Extension**

- 234,360
- 138,880
- 34,720
- 60,760
- Answers may vary.
- \$12,200
- \$61,000
- \$24,400
- \$6,100
- \$19,280
- \$96,400
- \$38,560
- \$9,640
- \$10,720

- \$53,600
- \$21,440
- \$5,360
- \$8,285
- \$41,425
- \$16,570
- \$4,142.50
- \$26,124
- \$130,620
- \$52,248
- \$13,062

**Pages 108-110****Think About It**

- Answers may vary.
- Answers may vary.

**Practice**

- 23,592 kWh
- 13,587 kWh
- 3,195 kWh
- 2,873
- \$141.64
- 1,201
- \$72.42
- 17,637
- \$419.76
- 7,581
- \$407.10
- \$82.89
- \$150.76
- \$30.60
- \$153.93
- 3.051
- \$43.87
- 2.134
- \$28.81
- 4.892
- \$54.94
- 4.809
- \$76.22

**Extension**

- \$1,073
- \$188.50
- \$145
- \$43.50

**Page 112****Problem Solving Application**

- \$84
- \$8.01
- \$306.60
- \$38.33
- \$124.80
- \$108
- \$1.24
- Clothes dryer

**Page 114****Problem Solving Application****Think About It**

- Answers may vary.
- Winter

**Practice**

- 486 gallons
- 30 months
- 48 months
- 729 gallons
- \$178.20
- \$623.70

**Pages 117-118****Think About It**

- For every 50 feet of perimeter, there is 400 square feet of wall. One gallon covers 400 square feet.
- Answers may vary.

**Practice**

- 58 ft
- 42 ft
- 56 ft
- 60 ft
- 2 gal; \$27.90
- 2 gal; \$34.10
- 3 gal; \$31.95
- \$1,512
- \$2,016
- \$3,024
- $l = 10$  in.;  $w = 8$  in.
- $l = 8$  in.;  $w = 6$  in.
- $l = 37.5$  cm;  $w = 30$  cm
- 2 gal; \$35.70
- 6 gal; \$98.10
- \$1,656
- \$9,936
- $l = 16$  in.;  $w = 13.3$  in.
- $l = 112.5$  cm;  $w = 60$  cm