

RETEACHING ♦ Installment Buying

CH. 9 Rev. Packet

You negotiate a price of \$10,500 for a new car. You get a trade-in allowance of \$2,000 for your old car. You pay a 6% sales tax and a \$70 registration fee. What do you owe the dealer for the car?

1. *Subtract* the trade-in allowance from the negotiated price to find the actual price. $\$10,500 - \$2,000 = \$8,500$
2. *Multiply* to find the tax. $0.06 \times \$8,500 = \510
3. *Add* to find the total cost.

$$\begin{array}{ccccccc} \text{ACTUAL PRICE} & + & \text{SALES TAX} & + & \text{REGISTRATION FEE} & = & \text{TOTAL COST} \\ \downarrow & & \downarrow & & \downarrow & & \downarrow \\ \$8,500 & + & \$510 & + & \$70 & = & \$9,080 \end{array}$$

You owe the dealer **\$9,080** for the car.

Find the amount owed to the dealer. Remember to estimate when you use your calculator.

1. Negotiated price: \$12,000
Sales tax: 7%
Registration fee: \$65

2. Negotiated price: \$11,500
Sales tax: 5.5%
Registration fee: \$58

3. Negotiated price: \$8,800
Sales tax: 6%
Registration fee: \$64

4. Negotiated price: \$12,800
Sales tax: 7.5%
Registration fee: \$85

5. Negotiated price: \$9,500
Sales tax: 4%
Registration fee: \$55

6. Negotiated price: \$11,800
Sales tax: 5%
Registration fee: \$82

7. Negotiated price: \$14,200
Trade-in allowance: \$4,500
Sales tax: 7%
Registration fee: \$98

8. Negotiated price: \$12,500
Trade-in allowance: \$3,750
Sales tax: 8%
Registration fee: \$66

9. Negotiated price: \$8,250
Trade-in allowance: \$1,700
Sales tax: 4.5%
Registration fee: \$72

10. Negotiated price: \$10,400
Trade-in allowance: \$3,800
Sales tax: 6.5%
Registration fee: \$82.50

11. Negotiated price: \$13,150
Trade-in allowance: \$4,650
Sales tax: 7%
Registration fee: \$105

12. Negotiated price: \$9,900
Trade-in allowance: \$1,750
Sales tax: 7.5%
Registration fee: \$54

RETEACHING ♦ Automobile Loans

You bought a car: down payment = \$2,000; amount to be financed = \$9,500 at $10\frac{1}{2}\%$ over 4 y.

Find the **finance charge** (interest) and the **total cost**.

1. Find the finance charge. Use the table.

- *Divide* to find number of \$100 to be financed.

$$\$9,500 \div \$100 = 95$$

- *Multiply* to find monthly payment.

$$95 \times \$2.56 = \$243.20$$

- *Multiply* to find total amount to be repaid.

$$\text{THINK: } 4 \text{ y} = 48 \text{ mo}$$

$$48 \times \$243.20 = \$11,673.60$$

- *Subtract* to find finance charge.

$$\$11,673.60 - \$9,500 = \$2,173.60$$

2. Find the total cost of the car. *Remember to include the down payment.*

$$\text{Add: } \$2,000 + \$9,500 + \$2,173.60 = \$13,673.60$$

MONTHLY PAYMENT PER \$100			
APR	3 y	4 y	5 y
7.9%	\$3.13	\$2.44	\$2.02
$10\frac{1}{2}\%$	\$3.25	\$2.56	\$2.15
12.6%	\$3.35	\$2.66	\$2.25

Use the monthly payment table above. Find the finance charge and the total cost. Remember to estimate whenever you use your calculator.

1. Down payment: \$2,000
Amount financed: \$8,800
Interest rate: 7.9%
Number of years: 3
-

2. Down payment: \$3,500
Amount financed: \$6,500
Interest rate: 10.5%
Number of years: 4
-

3. Down payment: \$1,500
Amount financed: \$8,900
Interest rate: 10.5%
Number of years: 5
-

4. Down payment: \$2,500
Amount financed: \$9,250
Interest rate: 12.6%
Number of years: 4
-

For Exercises 5–8, remember: Subtract to determine the amount to be financed.

5. Price: \$11,580
Down payment: \$3,000
Interest rate: 7.9%
Number of years: 5
-

6. Price: \$13,565
Down payment: \$4,000
Interest rate: 12.6%
Number of years: 5
-

7. Price: \$8,895
Down payment: \$3,500
Interest rate: 10.5%
Number of years: 3
-

8. Price: \$14,050
Down payment: \$4,000
Interest rate: 12.6%
Number of years: 4
-

RETEACHING ♦ Automobile Operating Expenses

You can use the following formula to estimate the cost of gasoline for a trip.

$$\text{COST} = (\text{MILES DRIVEN} \div \text{MPG}) \times \text{CPG}$$

THINK: mpg = mi per gal; cpg = cost per gal

You are planning a 625-mi car trip. Your car gets about 25 mpg. Gasoline costs \$1.089 per gal (cpg = \$1.089). About how much will gasoline for the trip cost?

1. *Divide* to find gal of gas you will use. $625 \div 25 \text{ mpg} = 25 \text{ gal}$
2. *Multiply* to find cost of gas. $25 \text{ gal} \times \$1.089 = \27.225
3. *Round up* to the nearest 10 dollars. $\$27.225 \approx \30

The gasoline for the 625-mi trip will cost about **\$30**.

Find the approximate cost of gasoline for each trip.
Round your answer up to the nearest 10 dollars.

1. Trip length: 400 mi
mpg: about 20
cpg: \$1.179
-

2. Trip length: 600 mi
mpg: about 19
cpg: \$1.119
-

3. Trip length: 750 mi
mpg: about 25
cpg: \$1.069
-

4. Trip length: 304 mi
mpg: about 35
cpg: \$1.099
-

5. Trip length: 198 mi
mpg: about 32
cpg: \$1.109
-

6. Trip length: 256 mi
mpg: about 18
cpg: \$1.179
-

7. Trip length: 481 mi
mpg: about 27
cpg: \$1.039
-

8. Trip length: 166 mi
mpg: about 39
cpg: \$1.079
-

9. Trip length: 214 mi
mpg: about 19
cpg: \$1.089
-

10. Trip length: 586 mi
mpg: about 36
cpg: \$1.129
-

Solve. Remember to estimate whenever you use your calculator.

11. The Meyers drove 828 mi on a trip. Their car gets about 16 mpg. Gasoline cost \$1.119 per gal. About how much did gasoline for their trip cost?
-

12. The Chens drove 402 mi to Cave Creek and 216 mi to Longview. They averaged 27 mpg and bought gas for \$1.169 per gal. About how much did they spend on gas?
-

RETEACHING ♦ Automobile Insurance

Donna purchased 50/100/50 liability insurance, \$50 deductible collision insurance, and \$50 deductible comprehensive insurance. Donna is an 18-year-old female. What is her total yearly premium for those coverages?

THINK: TOTAL PREMIUM = BASE PREMIUM × RATING FACTOR

1. Find the premiums in the rate tables on page 175 of your textbook.

2. Add the premiums to find the **total base premium**.

$$\$161.25 + \$89.90 + \$197.38 + \$72.65 = \$521.18$$

3. Find the **rating factor** on the graph on page 176. 1.65

4. Multiply the base premium by the rating factor. $1.65 \times \$521.18 = \859.947

Donna's yearly premium is **\$859.95**.

Find the total yearly base premium. Use the rate tables on page 175 of your textbook. Remember to estimate whenever you use your calculator.

1. Liability: 50/100/50
Collision: \$100 deductible
Comprehensive: \$50 deductible

2. Liability: 25/50/25
Collision: \$50 deductible
Comprehensive: \$100 deductible

3. Liability: 50/100/100
Collision: \$50 deductible
Comprehensive: \$50 deductible

4. Liability: 25/50/50
Collision: \$100 deductible
Comprehensive: \$100 deductible

5. Liability: 100/300/100
Collision: \$200 deductible
Comprehensive: \$100 deductible

6. Liability: 25/50/100
Collision: \$200 deductible
Comprehensive: \$50 deductible

Find the rating factor. Use the graph on page 176 of your textbook.

7. Unmarried male, 19
Drives his own car

8. Unmarried male, 24
Drives parents' car

9. Unmarried female, 20

10. Unmarried female, 24

Find the total premium. Use the tables on page 175 and the graph on page 176 of your textbook.

11. Unmarried male, 19
Drive parents' car
Liability: 25/50/100
Collision: \$100 deductible
Comprehensive: \$100 deductible

12. Unmarried female, 18
Liability: 50/100/100
Collision: \$50 deductible
Comprehensive: \$50 deductible

RETEACHING ♦ Renting a Car

Carl rented a compact car for 1 day from Do Drive Car Rental. The odometer read 14,788 mi when the car was taken and 14,925 mi when the car was brought back. What did the rental car cost? Use the rate table on page 178 of your textbook.

THINK: TOTAL COST = DAILY RATE + MILEAGE CHARGE

Find the mileage charge first. Notice that 100 mi are free each day.

1. *Subtract* to find number of miles driven. $14,925 - 14,788 = 137$ mi
2. *Subtract* to find *chargeable* miles. $137 - 100 = 37$ mi
3. *Multiply* to find mileage charge. $37 \times \$0.26 = \9.62
4. *Add* mileage charge to daily rate. $\$29 + \$9.62 = \$38.62$

The rental car cost **\$38.62**.

Find the rental cost. Use the rate table on page 178 of your textbook. Remember to estimate whenever you use your calculator.

1. Car: Midsize
Days: 1
Mileage: 450

2. Car: Luxury
Days: 2
Mileage: 622

3. Car: Van
Days: 2
Mileage: 355

4. Car: Compact
Days: 4
Mileage: 516

5. Car: Midsize
Days: 5
Mileage: 802

6. Car: Luxury
Days: 1
Mileage: 84

Solve. Use the rate table on page 178.

7. Mr. Wilson rented a van for a day. The odometer read 9,215 mi when he got the car and 9,458 mi when he returned it. What was the rental cost?

8. Ms. Ling rented a compact car for 3 d. The odometer read 4,942 mi when she got the car and 5,488 mi when she returned it. What was the rental cost?

9. Ms. Werner rented a midsize car for 6 d. She drove it 822 mi. What was the rental cost?

10. The Jay family rented a luxury car for 8 d. They drove an average of 250 mi each day. What was the rental cost?

11. Mr. Gomez rented a van for 5 d. The odometer read 18,207 mi when he got the car and 20,517 mi when he returned it. What was the rental cost?

12. Ms. Gold rented a luxury car on Monday and drove 62 mi. She rented a compact car for Tuesday and Wednesday and drove 287 mi in all. What was the total rental cost?
