

A graphic with a blue and black background. The word "LESSON" is written in white capital letters at the top. Below it, the number "9.1" is written in a large, white, bold font.

Purchasing a New Vehicle

Vocab:

Sticker Price - the asking price (on the window)

Base Price - the cost of the most basic model

Options - extras added to the base model (more \$)

Destination Charge - a fee for getting the car to you.

**LESSON
9.1****EXAMPLE 1**

Scott Oliver is shopping for a sports car. See **Figure 9.1** for a portion of the sticker for a convertible. What is this vehicle's sticker price?

Zephyr Convertible	
Base Price	\$30,665
Optional Equipment	
5-Speed Automatic Transmission	665
Polished Aluminum Wheels	925
Interior Upgrade	460
Destination Charge	745

~~+~~
\$33,460

LESSON
9.1

Find the sticker price. Check your answers in the back of the book.

1. River City Autos has a pickup truck for sale. Its base price is \$22,225. Prices for available options are 6-speed transmission, \$2,908; cruise control, \$240; trailer towing package, \$230; and power windows, \$738. Its destination charge is \$900.

$$\begin{array}{r} 22,225 \\ 2,908 \\ 240 \\ 230 \\ 738 \\ 900 \\ \hline \$27,241 \end{array}$$

LESSON
9.1

Find the sticker price. Check your answers in the back of the book.

2. Coble Downtown is selling a sport coupe hybrid at a base price of \$24,990. Options are the convenience package, \$1,300; sunroof, \$850; and sunroof wind deflector, \$100. Destination charge is \$625.

$$\begin{array}{r} 24990 \\ + 1300 \\ \quad 850 \\ \quad 100 \\ \quad 625 \\ \hline \boxed{\$27,865} \end{array}$$

LESSON
9.1
EXAMPLE 2 Algebra

Anna and Luke Shore are purchasing a new sport utility vehicle (SUV) with an MSRP of \$25,525.00 including the delivery, processing, and handling fee. The Driver Convenience Package, which includes mounted radio controls and power seats, costs five times the amount of the Appearance Package, which includes body side molding and chrome inserts. The SUV's total cost is \$29,137.41, including a 6.75% sales tax. What is the cost of the Appearance Package and the Driver Convenience Package?

$$1.0675(25,525 + d.c. + a.p.) = 29,137.41$$

$$1.0675(25,525 + 5x + x) = 29,137.41$$

$$\frac{1.0675(25,525 + 6x) = 29,137.41}{1.0675} \quad \frac{29,137.41}{1.0675}$$

$$\begin{array}{r} 25,525 + 6x = 27,295.00 \\ -25,525 \\ \hline 6x = 1,770 \end{array}$$

$$\frac{6x = 1,770}{6} \quad \frac{1,770}{6}$$

$$x = 295$$

$$a.p. = \$295$$

$$d.c. = \$1,475$$

LESSON
9.1

Complete the problem. Check your answer in the back of the book.

3. Nayan Patel purchases a compact vehicle with an MSRP of \$17,980.00, including the destination charge and title fee. He selects a 6-way power front passenger seat, which costs 10 times the amount of remote keyless entry. The total cost of the compact vehicle, including a 7% sales tax, is \$19,591.70. Find the cost of the power front passenger seat and the remote keyless entry.

$$1.07(17980 + fp + ke) = 19591.70$$

$$1.07(17980 + 10x + x) = 19591.70$$

~~$$1.07(17980 + 11x) = 19591.70$$~~

$$17980 + 11x = 18310$$

$$\begin{array}{r} 17980 + 11x = 18310 \\ -17980 \quad -17980 \\ \hline \end{array}$$

$$\frac{11x}{11} = \frac{330}{11}$$

$$x = \$30$$

ke = \$30
fp = \$300

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Dealer's Cost

Vocab:

Dealer's Cost -

a % of MSRP and options
as well as the destination charge

Dealer's Cost = Percent of Base Price + Percent of Options Price + Destination Charge

LESSON
9.2

EXAMPLE 1

The pickup truck sticker shows a base price of \$41,036.00, with options totaling \$2,425.00 and a destination charge of \$850.00. *Consumer Reports* shows the dealer cost as 87.7% of the base price and 90.2% of the options. What is the dealer's cost?

$$\begin{aligned} 0.877(41036) &= 35988.57 \\ 0.902(2425) &= 2187.35 \\ 850 &= 850 \\ \hline &= \$39025.92 \end{aligned}$$

LESSON
9.2

Complete the problem. Check your answer in the back of the book.

1. At Lakeland Autos, the dealer's cost on an SUV is 88% of the \$53,105 base price and 90% of the \$1,785 options price plus a \$640 destination charge. Find the dealer's cost for the SUV.

$$0.88(53105) = 46732.40$$

$$0.90(1785) = 1606.50$$

$$640 = 640$$

$$\$48978.90$$

LESSON
9.2
EXAMPLE 2 Algebra

Abbie Williamson checked the Internet to find the dealer's cost of the domestic hybrid sedan she wanted to purchase. She found that the dealer's base cost was \$21,971.90 and the dealer's cost for options was \$2,459.60. The dealer would pass the \$298.00 destination charge on to the consumer. If the percent of the dealer's cost is 82% and of dealer's cost of options is 86%, find the car's sticker price.

$$0.82x = 21971.90$$

$$x = 26,795 \text{ base}$$

$$0.86x = 2459.60$$

$$x = 2860 \text{ options}$$

$$\begin{array}{r} 26795 \\ 2865 \\ 298 \\ \hline 29958 \end{array}$$

LESSON
9.2

Complete the problem. Check your answer in the back of the book.

2. Omar and Zina Aboud found that the dealer's cost of the base price was \$16,558.16 and the dealer's options cost was \$611.60. The consumer paid the \$475.00 destination charge. If the percent of the dealer's cost is 92% and the percent of dealer's options cost is 88%, find the car's sticker price.

$$0.92x = 16558.16$$

$$x = 17998$$

$$0.88x = 611.60$$

$$x = 695$$

$$\begin{array}{r} 17998 \\ 695 \\ 475 \\ \hline \$19,168 \end{array}$$

LESSON
9.2

For Problems 3–8, calculate the dealer's cost.

	Base Price	×	Dealer's Percent	+	Option Price	×	Dealer's Percent	+	Destination Charge	=	Dealer's Cost
3.	\$25,800	×	85.0%	+	\$2,200	×	88.0%	+	\$660	=	

$$(25800 \times 0.85) + (2200 \times 0.88) + 660$$

$$\boxed{\$24,526}$$