

Lesson 2 Multi-Step Problem Solving

Multi-Step Example

Elisa drove 340 miles to visit her cousins. She drove 65 miles per hour for 4 hours. If she drove 40 miles per hour during the rest of the trip, how long did it take her to drive the 340 miles? **7.EE.4a, MP 1**

- (A) 5 hours
- (B) 6 hours
- (C) 7 hours
- (D) 8 hours

Use a problem-solving model to solve this problem.

1 Understand

Read the problem. Circle the information you know.
Underline what the problem is asking you to find.

2 Plan

What will you need to do to solve the problem? Write your plan in steps.

Step 1 Write an equation that sets the following equal to _____ miles:
 Distance driven in _____ hours plus distance driven at _____ miles per hour.

Step 2 _____ the numbers of hours driven at each rate.

3 Solve

Use your plan to solve the problem. Show your steps.

$65(\underline{\quad}) + \underline{\quad}(x) = 340$ $x = (\underline{\quad})$ Let x represent the hours driven at 40 mph.

Add the hours: _____ hours + _____ hours = _____ hours.

So, the correct answer is _____. Fill in that answer choice.

Read to Succeed!



Elisa drives at two different rates. Add the number of hours that she drove at each rate.

4 Check

How do you know your solution is accurate?

Lesson 2 *(continued)*

Use a problem-solving model to solve each problem.

1 Mrs. Watson works as a sales representative and earns a base salary of \$300 each week. She also receives a commission, which is a percentage of her total sales. One week she had \$5,225 in sales and total pay of \$1,083.75. What is her commission rate (R)?

7.EE.4a, MP 1

- (A) $R = 15\%$
- (B) $R = 20\%$
- (C) $R = 25\%$
- (D) $R = 30\%$

3 Lara's business has orders for a large number of rectangular tabletops from three stores. Each tabletop has an area of 16 square feet. If a bucket of paint will cover 1,000 square feet, how many buckets will Lara need to paint all the tabletops? Write an equation and solve. 7.EE.4a, MP 6

Store	Tabletops Ordered
New Look	30
Deco Depot	50
Retro Room	90

2 Mr. Levy stopped at the grocery store on his way home. He spent \$10.50 to buy two loaves of bread, eggs, juice, and milk. Using the information in the table, write and solve an equation that shows how much Mr. Levy spent on each loaf of bread. 7.EE.4, MP 2

Item	Bread	Eggs	Juice	Milk
Cost (\$)		1.25	2.50	3.25

4 **H.O.T. Problem** Roberto drove 18 minutes to get to the highway. Once on the highway, he drove the same amount of time but covered twice the distance. Compare the average rate Roberto drove on the highway to the average rate he drove before getting on the highway. Justify your solution. 7.EE.4, MP 4
