NAME

Module 4 Solving Problems Using Linear Equations of One Variable

Lesson 4 Solving Mixture and Rate Problems Using Equations of One Variable

guided practice

Set 1

1. The Corner Coffee Shop sells extra large lattes for $3.50 each and large lattes for $2.00 each. Yesterday the shop sold 35 more large lattes than extra large lattes for a total of $180.00. How many of each size drink did the coffee shop sell?

The shop sold 20 extra large lattes and 55 large lattes.

2. Kayla invested $1,000 in two different savings accounts. She invested some of the money in an account that earned 5% annual interest and the rest in an account that earned 7% annual interest. After a year, Kayla earned $58 in interest. How much did she invest in each account?

Kayla invested $600 at 5% and $400 at 7%.

3. Fruitlicious Punch contains 15% apple juice. How much pure apple juice should be added to 3 gallons of Fruitlicious Punch to make a drink that contains 25% apple juice?

The amount of pure apple juice to be added is 0.4 of a gallon.

4. A group of ten friends went to a monster truck rally. Advance tickets for the show were $8.00 each and tickets purchased at the event were $9.25 each. The total for the 10 tickets was $81.25. How many advanced tickets were purchased?

The group bought 9 advance tickets.

Set 2

1. Two birds fly in opposite directions. One bird flies at 40 km/hr while the other flies 55 km/hr. After how many hours will the two birds be 142.5 kilometers apart?

The birds will be 142.5 km apart in 1.5 hours.

2. A turtle walks at a rate of 20 ft/min east. Another turtle starts walking at the same time but travels west at a rate of 22 ft/min. How long will it take for the turtles to be 336 feet apart?

It will take 8 minutes for the turtles to be 336 feet apart.

3. Jacob left a rest area at noon and traveled north along Interstate 5 at a constant rate of 50 mph. Silma left the same rest area half an hour later, and drove north on Interstate 5 at a constant rate of 60 mph. At what time did Silma catch up to Jacob?

Silma caught up to Jacob at 3 P.M.