Week 4 Checkpoint Chapter five

Section 5.5

Solve and check each of the following equations for x

24. 

Solution:



Check: 

48. 

Solution:



Check:



56. 

Solution:



Check:



Solve each of the following equations for x

72. 

Solution:



Check: 

Section 5.6 Solve the following word problems

6. Number problem. If one-half of one integer is subtracted from three-fifths of the next consecutive integer the difference is 3. What are the two integers?

Solution: Assuming the first integer is.

Then, the equation to be solved is.



The first integer is 24 and the next integer is 25.

18. A passenger train can travel 325mi in the same time a freight train takes to travel 200mi. If the speed of the passenger train is 25 mi/h faster than the speed of the freight train, fin the speed of each.

Solution: Assuming the speed of the freight train is.

Then, the equation to be solved is.



Then, the speed of the freight train is 40 mi/h and the passenger train is 65 mi/h.

22. Ariana took 2 h longer to drive 360mi on the first day of a trip than she took to drive 270 mi on the second day. If her speed was the same on both days, what was the driving time each day?

Solution: Assuming the speed of the driving time for the second day is.

Then, the equation to be solved is.



Then, on the first day the driving time is 8 h and the second day is 6 h.

26. A plane flies 720 mi against a steady 30-mi/h headwind and then returns to the same point with the wind. If the entire trip takes 10 h, what is the plane’s speed in still air?

Solution: Assuming the speed is.

Then, the equation to be solved is.



From the quadratic formula:



The speed must be positive. Then, the speed is 150 mi/h.

34. Kevin earned $165 interest for 1 year on an investment of $1500. At the same rate, what amount of interest would be earned by an investment of $2500?

Solution: Assuming the earned interest by an investment of 2500 is.

Then, the equation to be solved is.



Kevin earned $275 interest if he invests $2500.

Section 5.7

Simplify each complex fraction

10. 

Solution: 

28.Fungicides account for 1/10 of the pesticides used in the

United States. Insecticides account for ¼ of all the pesticides used in the United States. The ratio of fungicides to insecticides used in the United States can be

 write this ratio in simplest form

Solution: 

32.  simplify the formula

Solution: 