

1. Click the link below to watch a video recordings of concepts in this chapter. You are encouraged to watch the videos and work problems with the instructor to help ensure your understanding of the material. Take notes as you go through the material in a similar manner to how you would take notes in a traditional classroom. Writing helps you remember the concepts.

The link below contains all of the videos for this chapter. You can watch them one at a time or binge watch the whole chapter then do chapter assignments.

Chapter 9 & 11 Section Videos¹

- True - I understand the concept.
- False - I am not understanding the concept and intend to seek assistance.

1: <http://www.screencast.com/t/XLQwcpY9>

Answer: True - I understand the concept.

2. Using the variable x , translate the sentence into an equation. Solve the resulting equation.

The sum of 8 and a number is 15.

The algebraic equation is _____.

The number is _____.

Answers $8 + x = 15$

7

3. Let x represent the number. Use the given conditions to write an equation. Solve the equation and find the number.

The sum of four and three times a number is 76. Find the number.

Write an equation for the given conditions.

Find the number.

$x =$ _____

Answers $4 + 3x = 76$

24

4. Using the variable x , translate the sentence into an equation. Solve the resulting equation.

A number divided by 7 equals the number decreased by 54.

Translate the sentence into an equation.

_____ (Do not simplify. Use integers or fractions for any number in the equation.)

The number is _____.

Answers $\frac{x}{7} = x - 54$

63

5. Using the variable x , translate the sentence into an equation. Solve the resulting equation.

If a number is increased by 9 and then divided by 5, the result is 8.

The algebraic equation is _____.

The number is _____.

Answers $\frac{x + 9}{5} = 8$

31

6. Using the variable x , translate the sentence into an equation. Solve the resulting equation.

The quotient of a number and 2 is 15.

The equation is _____. (Do not simplify.)

The solution is $x =$ _____.

Answers $\frac{x}{2} = 15$

30

7. Click the link below to watch a short video explaining a specific topic in this section.

[Question 09.02.15²](#)

- True - I understand the concept.
 False - I am not understanding the concept and intend to seek assistance.

2: <http://www.screencast.com/t/Ojjrm0QoaMed>

Answer: True - I understand the concept.

8. The sum of three consecutive natural numbers is 108. Find the numbers.

The numbers are _____, _____, and _____. (Use ascending order.)

Answers 35

36

37

9. Seven times a number equals 119. Find the number.

The number is _____.

Answer: 17

10. Find the number.

Nine times a number divided by 2 equals 72.

The solution is _____.

Answer: 16

11. In 10 years, a child will be 2 years older than twice her current age. What is the current age of the child?

The current age of the child is _____ years.

Answer: 8

12. Use the formula $d = rt$ to find the value of the missing variable.

$d = 160$ miles, $r = 40$ mph

$t =$ _____ hr

Answer: 4

13. Two cyclists leave a city at the same time, one going east and the other going west. The west bound cyclist bikes at 6 mph faster than the east bound cyclist. After 5 hours they are 150 miles apart. How fast is each cyclist riding?

The west bound cyclist is riding _____ mph.

The east bound cyclist is riding _____ mph.

Answers 18

12

14. Click the link below to watch a short video explaining a specific topic in this section.

Question 9.02.43³

- True - I understand the concept.
 False - I am not understanding the concept and intend to seek assistance.

3: <http://www.screencast.com/t/q2YVnmoilt>

Answer: True - I understand the concept.

15. A solution contains 5% salt. How much water should be added to 90 ounces of this solution to make a 4.5% solution?

_____ ounces of water should be added to 90 ounces of initial solution to make a 4.5% solution.

Answer: 10

16. Click the link below to watch a short video explaining a specific topic in this section.

Question 9.02.45⁴

- True - I understand the concept.
 False - I am not understanding the concept and intend to seek assistance.

4: <http://www.screencast.com/t/rflVYDaJ1>

Answer: True - I understand the concept.

17. Nico is saving money for his college education. He invests some money at 6%, and \$1800 less than that amount at 5%. The investments produced a total of \$196 interest in 1 yr. How much did he invest at each rate?

He invested \$ _____ at 6% and \$ _____ at 5%.

Answers 2600

800

18. How many gallons of 20% antifreeze should be mixed with 10 gallons of 83% antifreeze to obtain a 55% antifreeze mixture?

_____ gallons of 20% antifreeze should be mixed with 10 gallons of 83% antifreeze to obtain a 55% antifreeze mixture.

Answer: 8
