Worksheet 2.R: Equations Review | Chapter 2

Match each vocabulary term with its correct definition:

coefficient

a. Two numbers with a product of 1.

____ multiplicative inverse

b. A symbol, usually a letter, used to represent a number in expressions.

____ variable

c. The numerical factor of a term that contains a variable.

Complete the statement: If $10 = \frac{1}{5}x$, then x + 3 =_____. Explain your reasoning.

Solve each equation. Check your solution.

1.
$$-24 = -\frac{6}{7}p$$

2.
$$\frac{2}{3}a = 12$$

$$3. \ 1\frac{7}{8}y = 4\frac{1}{2}$$

$$4.10.8 = 0.9n$$

Solve each two-step equation. (See Lesson 2)

5.
$$2x + 3 = 7$$

6.
$$3x + 2 = 20$$

7.
$$-1 = \frac{1}{2}a + 9$$

8.
$$\frac{n}{-3} - 2 = -18$$

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Solve each equation. (See Lesson 4)

9.
$$8 + x = 3x$$

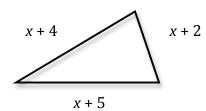
10.
$$3x + 6 = 6x$$

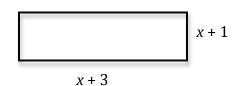
11.
$$3x + 3 = x - 5$$

12.
$$2x + 5 = 4x - 1$$

Write an equation to find the value of *x* so that each pair of polygons has the same perimeter. Then solve. (See Lesson 4)

13.





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Solve each equation. (See Lesson 5)

14.
$$9(j-4) = 81$$

15.
$$-3(9 + x) = 33$$

16.
$$5(a-7) = 25$$

17.
$$2(10+t) = 4t-2$$

For each of the following problems, define your variable. Then write and solve an equation to determine the answer.

18. Hannah joined a dance team. She had to buy a new pair of shoes for \$55, and each month of dance classes costs \$35. If she spent a total of \$265 at the dance studio, how many months of classes did she pay for?

19. Matilda loves reading so much that she has to restrain herself. She wants to read a book that will take about 20 hours to read. She will only let herself read for four hours at a time. She has already read for 8 hours. How many more reading sessions (of four hours each) REMAIN?

20. Morgan is four years older than twice the age of Chad. If Morgan is 56, how old is Chad?