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| **Student:** Bobby Myers<br>**Date:** 1/23/16<br>**Time:** 2:15 PM | **Instructor:** Dee Wessler, Nathalie Dodson, Christina Horton<br>**Course:** MAT1302-14A-4B16-S1<br>**Book:** Bittinger: Elementary Algebra, Concepts and Applications, 9e | **Assignment:** Unit I Homework |

1. Evaluate.

$\frac{m+n}{8}$ for $m = 53$ and $n = 3$

$\frac{m+n}{8} =$ 7

(Simplify your answer.)

2. Translate to an algebraic expression.

2 less than n

The translation is '2 − n.

3. Translate to an algebraic expression.

Eleven times the difference of two numbers

Choose the correct answer below.

- ○ $11 \div (a - b)$
- ○ $11 - b \cdot a$
- ○ $11 + a - b$
- ✓ $11(a - b)$

4. List the terms in the expression.

$7m + \frac{m}{n} + 6n$

The terms in $7m + \frac{m}{n} + 6n$ are ☐.

(Use a comma to separate answers as needed.)

5. Multiply.

$4(m + 1 + 9n)$

$4(m + 1 + 9n) =$ ☐

6. Use the distributive law to factor the following. Check by multiplying.

$24x + 12y + 60z$

$24x + 12y + 60z =$ ☐

(Factor completely.)

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7. Name the integers from the list below.

$-6, 0, 46, 9.94, \sqrt{8}, \sqrt{4}, 2\frac{1}{7}, -\frac{6}{29}, 1.2525525552...$

What are the integers? Select all that apply.

- ☐ A. 1.2525525552...
- ☑ B. $-6$
- ☐ C. $-\frac{6}{29}$
- ☐ D. $2\frac{1}{7}$
- ☐ E. 0
- ☐ F. $\sqrt{8}$
- ☐ G. $\sqrt{4}$
- ☐ H. 46
- ☐ I. 9.94

8. Find the absolute value.

$|y|$ for $y = 44$

$|y| =$ ☐

9. Add.

$50 + (-68) + (-2) + (-98)$

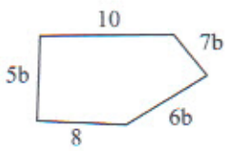
$50 + (-68) + (-2) + (-98) =$ ☐
(Simplify your answer. Type an integer or a fraction.)

10. Combine like terms.

$-7x + 6.1 + (-x) + (-10.3)$

$-7x + 6.1 + (-x) + (-10.3) =$ ☐
(Do not factor.)

11. Find the perimeter for the figure shown in the diagram below.




The perimeter is ☐.

12. Travis had $346.37 in his checking account. After depositing $173 in the account and writing a check, his account was overdrawn by $38.02. What was the amount of the check?

The amount of the check was $□. (Type an integer or a decimal.)

13. Perform the necessary operations.

$-9-2+(-8)-4$

$-9-2+(-8)-4=$ □

14. Combine like terms.

$4-5d-3-5d$

The simplified expression is □.

15. Multiply.

$-3\cdot(-3)\cdot(-2)\cdot(-4)$

$-3\cdot(-3)\cdot(-2)\cdot(-4)=$ □

16. Divide, if possible, and check. If the quotient is undefined, state this.

$-8.4\div(-2)$

Select the correct choice below and fill in any answer boxes in your choice.

○A. $-8.4\div(-2)=$ ■ (Type an integer or a decimal.)

○B. The answer is undefined.

17. Simplify.

$-4^2$

$-4^2=$ □

18. Simplify.

$(-10)^4$

$(-10)^4=$ □

19. Simplify.

$(2t)^3$

$(2t)^3 =$ ☐

20. Simplify.

$3 - 60 \div 5 \cdot 4$

$3 - 60 \div 5 \cdot 4 =$ ☐

21. Simplify.

$[3 \cdot (2 - 3)]^2 - 1$

$[3 \cdot (2 - 3)]^2 - 1 =$ ☐

22. Simplify.

$36 \div (-2)^2 + 4[2 - 6(3 - 4)^5]$

$36 \div (-2)^2 + 4[2 - 6(3 - 4)^5] =$ ☐

23. Simplify.

$$\frac{3^2 - (-1)^7}{5 \cdot 7 - 4 \cdot 3^2 - 2^2}$$

$\frac{3^2 - (-1)^7}{5 \cdot 7 - 4 \cdot 3^2 - 2^2} =$ ☐ (Type an integer or a simplified fraction.)

24. Evaluate and reduce.

$\frac{2d - 5d^2}{d^2 - 30}$ for $d = 6$

The answer is ☐. (Simplify your answer.)

25. Simplify.

$27x - y - 3(9x - 6y + 5z)$

$27x - y - 3(9x - 6y + 5z) =$ ☐
(Simplify your answer. Do not factor.)

26. Simplify.

$4(8y - 5) - [3(2y - 2) + 1]$

$4(8y - 5) - [3(2y - 2) + 1] =$ ☐
(Simplify your answer.)

27. Solve using the addition principle.

$x - \frac{1}{8} = -\frac{3}{4}$

The solution is $x =$ ☐.
(Simplify your answer. Type an integer or a fraction.)

28. Solve using the multiplication principle. Don't forget to perform a check.

$-\frac{x}{3} = 11$

The solution is $x =$ ☐.

29. Solve using the multiplication principle. Don't forget to perform a check.

$-\frac{1}{2}x = -\frac{9}{10}$

The solution is $x =$ ☐.
(Simplify your answer. Type an integer or a fraction.)

30. Solve the equation below, and check your solution.

$p + 12.7 = -5.6$

The solution is, $p =$ ☐.

31. Solve. Don't forget to check.

$5x - 13 = 27$

The solution is $x =$ ☐.
(Type an integer or a simplified fraction.)

32. Solve and check.

$$\frac{5}{6}t - 7 = 3$$

The solution is t = ☐.
(Type an integer or a simplified fraction.)

33. Solve.

$$6 - 2x = 5x - 9x + 10$$

The solution is x = ☐.

34. Solve. Clear fractions or decimals first.

$$\frac{6}{5} + \frac{2}{5}x = \frac{29}{10} + \frac{7}{2}x + \frac{1}{2}$$

The solution is x = ☐.
(Type an integer or a simplified fraction.)

35. Clear fractions or decimals, solve, and check.

$$0.56 + 0.26t = 3.21t - 0.62$$

The solution is t = ☐. (Simplify your answer. Type an integer or a fraction.)

36. Solve and check.

$$6(6t + 1) - 11 = t - (t + 4)$$

The solution is t = ☐. (Simplify your answer. Type an integer or a fraction.)

37. Solve and check.

$$\frac{1}{7}(2x - 5) = 7$$

The solution is x = ☐.

38. Clear fractions or decimals, solve, and check.

$$0.9(6x + 7) = 3.4 - (x - 3)$$

The solution is x = ☐. (Simplify your answer. Type an integer or a fraction.)

39. Solve. Label any contradictions or identities.

$7(x + 4) = 7(4 + x)$

Select the correct choice below and, if necessary, fill in the answer box to complete your choice.

A. $x =$ ▪ (Simplify your answer.)

B. All real numbers are solutions; identity.

C. No solution; contradiction.

40. The formula for figuring a student's average test score A is $A = \frac{p}{t}$, where p is the total points earned on all the tests, and t is the number of tests. Find a student's average when 296 points are earned on 4 tests.

The average is ☐ points.

41. Solve for the indicated letter.

$b = 5 - a$, for a

The solution is $a =$ ☐.

42. Solve for g.

$d = \frac{1}{2}gr$

The solution is $g =$ ☐.
(Use integers or fractions for any numbers in the expression. Simplify your answer.)

43. Solve for k.

$D = \frac{k + p}{2}$

The solution is $k =$ ☐.

44. Jerry left a $5.46 tip on a meal that cost $26. What percent of the meal's cost was the tip? What was the total cost of the meal including the tip?

The tip was ☐% of the meal's cost.

The total cost of the meal including the tip was $☐.

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45. Of all the people that attend movies, 67% are in the 12 – 29 age group. At one theater, 400 people attended a showing of a certain movie. How many were in the 12 – 29 age group?

The number of people in the 12 – 29 age group was ☐.

46. A low-calorie bread has 82 calories in a 2-slice serving. This is 10% fewer than the number of calories in a serving of regular bread. How many calories are in the same size serving of regular bread?

A serving of regular bread contains ☐ calories.
(Round to the nearest whole calorie.)

47. The room numbers of two adjacent classrooms are two consecutive odd numbers. If their sum is 1028, find the classroom numbers.

The classroom numbers are ☐. (Use a comma to separate answers.)

48. The ages of Edna, Ellie, and Elsa are consecutive integers. The sum of their ages is 108.

What are their ages?

Their ages are ☐ years, ☐ years and ☐ years old.
(Type the ages in order from youngest to oldest.)

49. A garden is shaped like a rectangle whose perimeter is 76 ft. The length is 10 ft more than the width. Find the length and the width.

The length is ☐ ft.
The width is ☐ ft.
(Simplify your answers. Type an integer or a decimal. Do not round.)

50. In a triangle, the measure of the first angle is twice the measure of the second angle. The measure of the third angle is 76° more than the measure of the second angle. Use the fact that the sum of the measures of the three angles of a triangle is 180° to find the measure of each angle.

The measure of the first angle is ☐°.

The measure of the second angle is ☐°.

The measure of the third angle is ☐°.