Name_____ Due Date_____ Score_____

WORKSHEET # 4 [2.3]

1. Combine like terms: $2x-5y-9x-3y$

   [A] $-7x-8y$ [B] $-7x-3y$

   [C] $-3x-12y$ [D] $11x-8y$

   [1] _____

2. Combine like terms: $6x-8y-4x-3y$

   [2] _____

Simplify:

3. $4x-7y-2x+8y$

   [3] _____

4. $5y + 2 + (-7x) + (-9y) - (-8x)$

   [A] $-15x-4y-2$ [B] $-15x-14y+2$

   [C] $x-4y+2$ [D] $x-14y-2$

   [4] _____

5. $-4(4x+2y-3)$

   [A] $-16x+8y-12$ [B] $16x+8y+12$

   [C] $16x+8y-12$ [D] $-16x-8y+12$

   [5] _____

6. $4x + (x + 2) + 3(x - 4)$

   [A] $2x + 14$ [B] $-2x + 10$

   [C] $8x - 10$ [D] $8x + 14$

   [6] _____

7. $2x - 3(x + 4) - (x + 2)$

   [7] _____

8. $5x-4-8(4x+6)$

   [8] _____

9. Use the distributive property to simplify: $-(-4x-3y)$

   [9] _____

10. Use the distributive property to simplify: $8(9x+2y)$

    [A] $9x+2y$ [B] $72x+2y$

    [C] $72x-16y$ [D] $72x+16y$

    [10] _____

Simplify:

11. $5x + 2(x - 3) + 4(x - 1)$

    [11] _____

12. $4x + (x - 2) + 3(x + 4)$

    [A] $2x - 14$ [B] $8x + 10$

    [C] $-2x + 10$ [D] $8x + 14$

    [12] _____

Solve:

13. $-2 = 4(x - 2) + 6x$

    [A] $\frac{2}{5}$ [B] $\frac{3}{5}$ [C] $-\frac{3}{5}$ [D] $-\frac{2}{5}$

    [13] _____

14. $15 = 3(x + 2)$

    [A] 3 [B] 7 [C] –5 [D] 5

    [14] _____

15. $15 = 5(x + 3)$

    [A] –3 [B] 0 [C] 3 [D] 6

    [15] _____

Solve:

16. $x + 6 = 2(2x - 4)$

[A] $\frac{10}{3}$ [B] $-\frac{2}{3}$ [C] $\frac{16}{3}$ [D] $\frac{14}{3}$

[16] _____

17. $x + 2 = 3(2x - 5)$

[A] $-\frac{13}{5}$ [B] $\frac{7}{5}$ [C] $\frac{17}{5}$ [D] 3

[17] _____

18. $6x - 6 = x - 1$

[18] _____

19. $\frac{x}{6} - \frac{x}{9} = 3$

[19] _____

20. $\frac{x}{6} - \frac{x}{8} = 2$

[20] _____

21. $3.1x - 0.3 = 0.5x + 15.3$

[21] _____

22. $1.6 = -0.4y$

[A] –4 [B] 1.2 [C] –0.64 [D] –1.2

[22] _____

23. $-3(x + 4) = 1 - 3x$

[23] _____

24. $5x + 16 = x + 4(4 + x)$

[24] _____

25. $\frac{x}{8} - \frac{x}{9} = 1$

[A] $\frac{9}{8}$ [B] 8 [C] 72 [D] $\frac{8}{9}$

[25] _____

26. $5x + \frac{2}{7} + 2x - \frac{2}{7} = \frac{4}{7}$

[26] _____

27. $5x + \frac{1}{11} + 5x - \frac{4}{11} = \frac{8}{11}$

[A] $\frac{3}{110}$ [B] $\frac{17}{21}$ [C] $\frac{1}{10}$ [D] $\frac{13}{110}$

[27] _____

28. $\frac{x+5}{15} - \frac{x}{5} = \frac{17}{75}$

[28] _____

29. A triangle has a perimeter of 71 inches. Find the three sides if one side is 26 inches larger than the smallest and the third side is three times the smallest.

[29] _____

30. A triangle has a perimeter of 37 inches. Find the three sides if one side is 12 inches larger than the smallest and the third side is three times the smallest.

[30] _____

31. A rectangle is 8.4 inches long and 1.3 inches wide. Find its area.

[A] 109.2 in.^{2} [B] 9.7 in.

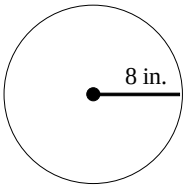
[C] 19.4 in. [D] 10.92 in.^{2}

[31] _____

32. A rectangle is 4.4 inches long and 4.2 inches wide. Find its perimeter.

[32] _____

33. Find the circumference of the circle. Use $\pi = 3.14$.



[A] 200.96 in. [B] 50.24 $in.^2$

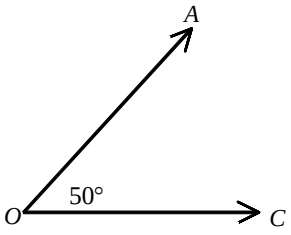
[C] 9.72 in. [D] 50.24 in.

[33] _____

34. Calculate the circumference of a circle whose radius is 6 mm. Use 3.14 for π.

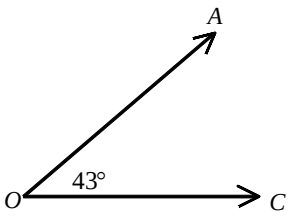
[34] _____

35. Find the measure of the supplement of $\angle AOC$.



[35] _____

36. Find the measure of the supplement of $\angle AOC$.



[36] _____

37. If $\angle A$ and $\angle B$ are complementary angles and $m\angle A = 27°$, find $m\angle B$.

[37] _____

38. A triangle has a perimeter of 57 inches. Find the three sides if one side is 21 inches larger than the smallest and the third side is four times the smallest.

[38] _____

39. A rectangle is 9.4 inches long and 3.5 inches wide. Find its perimeter.

[A] 25.8 in. [B] 12.9 in.

[C] 329 $in.^2$ [D] 32.9 $in.^2$

[39] _____

40. Solve: $\frac{x+9}{10} - \frac{x}{2} = \frac{3}{5}$

[40] _____

41. Write the ratio of 33 to 87 as a fraction in simplest form.

[41] _____

42. A bus travels 120 miles on 6 gallons of gas. How many gallons will it need to travel 340 miles?

[A] 2.1 gallons [B] 16 gallons

[C] 19 gallons [D] 17 gallons

[42] _____

43. Choose the fraction that shows the ratio of 5 cats to 2 cats.

[A] $\frac{3}{5}$ [B] $\frac{5}{2}$ [C] $\frac{2}{5}$ [D] $\frac{5}{7}$

[43] _____

44. Solve the proportion: $\frac{r}{5} = \frac{28}{70}$

[44] _____

45. Solve the proportion: $\frac{3}{5} = \frac{v}{90}$

[A] $v = 18$ [B] $v = 15$

[C] $v = 52$ [D] $v = 54$

[45] _____

46. Solve for x: $\frac{x-4}{5} = \frac{1}{5}$

[A] 50 [B] $\frac{1}{5}$ [C] -3 [D] 5

[46] _____

47. Solve for x. $\frac{x}{10} = \frac{x+3}{25}$

[47] _____

48. A survey indicated that 2 out of 8 doctors used brand X aspirin. If 1600 doctors were surveyed, how many used brand X?

[A] 800 used brand X

[B] 400 used brand X

[C] 1200 used brand X

[D] 200 used brand X

[48] _____

49. A bus travels 72 miles on 6 gallons of gas. How many gallons will it need to travel 312 miles?

[A] 1.4 gallons [B] 26 gallons

[C] 25 gallons [D] 28 gallons

[49] _____

50. If Mighty Mart sells 4 gumballs for 25 cents, how many gumballs could you buy for 75 cents?

[A] 19 [B] 15 [C] 12 [D] 100

[50] _____