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Algebra Assessment

Date_____

Questions: 50. You will not need a calculator. Use the empty space for your calculations.

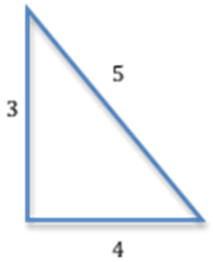
1. If x=15 and z=19, then x + z =
   a. 34 b. 40 c. 30 d. 44

2. If x=15, y=25, and z=19, then x + y – z =
   a. 31 b. 21 c. 59 d. 49

3. If X + 9 = 17, X=
   a. 26 b. 18 c. 8 d. 17

4. The sum of a number and 18 is 33. What is the number?
   a. 18 b. 15 c. 33 d. 25

5. What is the perimeter of the triangle at right?
   a. 60 b. 6 c. 12 d. 144



6. If x =7, what is 4x?
   a. 26 b. 27 c. 28 d. 32

7. If y = 8, what is $\frac{24}{y}$?
   a. 182 b. 192 c. 6 d. 3

8. If z = 4, what is $\frac{5z}{2}$?
   a. 27 b. 10 c. 40 d. 108

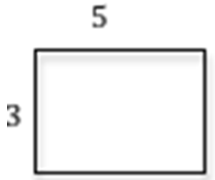
9. 8 + 4(6 + 3) =
   a. 40 b. 118 c. 108 d. 44

10. If x = 8 and y = 3, then 5 + 4xy =
    a. 101 b. 488 c. 216 d. 111

11. If 8x = 56, x=
    a. 5 b. 6 c. 7 d. 8

12. If $\frac{y}{4} = 12$, y=
    a. 4 b. 48 c. 3 d. 12

13. What is the area of the figure at right?



a. 30 b. 15 c. 8 d. 16

14. What is another expression for 6(2K + 3) =?

a. 12K + 18 b. 8K + 9 c. $\frac{3}{2}$ d. 12K + 3

15. If 2x + 10 = 14, x=

a. 7 b. 6 c. 2 d. 12

16. If $\frac{x}{4} - 3 = 7$, x =

a. 40 b. 16 c. 4 d. 28

17. 3^3 =

a. 9 b. 27 c. 33 d. 81

18. If x = 4, then $6x^2$ =

a. 48 b. 64 c. 96 d. 576

19. -3 + 7 =

a. 10 b. -4 c. -10 d. 4

20. -4 – 3 =

a. -1 b. -7 c. 1 d. 7

21. -6 + 4 =

a. -10 b. 2 c. -2 d. 10

22. (-8)(3)=

a. -24 b. 24 c. -5 d. -21

23. (-7)(-8)=

a. 15 b. -15 c. -56 d. 56

24. $\frac{24}{-3}$ =

a. -8 b. 8 c. -6 d. 6

25. |-8| =

a. 0 b. 8 c. -8 d. -4

26. Simplify: $3x^2 + 2x + 5x^2 + x$ =

a. $15x^2 + 2x$ b. $8x^2 + 2x$ c. $15x^4 + 2x^2$ d. $8x^2 + 3x$

27. $\sqrt{36}$ =

a. 0 b. 6 c. 4 d. 9

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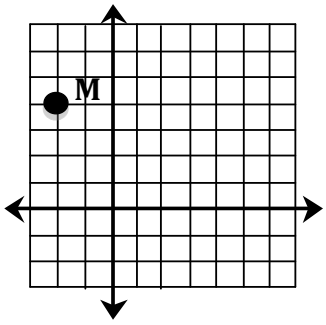
28. What inequality is represented at right?

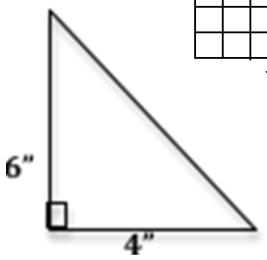
a. $x > 2$ b. $x < 2$ c. $x \leq 2$ d. $x \geq 2$

29. What are the coordinates of point M?



a. (2,3) b. (-2,3) c. (2,-3) d. (3,2)

30. What is the area of the triangle at right?



a. 5 in^2 b. 6 in^2 c. 12 in^2 d. 24in^2

31. -4 – (-3) =

a. -1 b. -7 c. 1 d. 7

32. If 4x = 2x + 6, x=

a. 0 b. 2 c. 3 d. 4

33. If x +2 < 5, then

a. $x > 7$ b. $x < 7$ c. $x > 3$ d. $x < 3$

34. Solve for y: 2x + y = 10

a. y=5 b. y=-2x + 10 c. y=2x+10 d. y=12

35. Solve for t: d = rt

a. $t = rd$ b. $t = \frac{d}{r}$ c. $t = \frac{r}{d}$ d. $t = r$

36. Solve this system of equations:

y = 2x
x + y = 9

a. x=-3, y=5 b. x=3, y=6 c. x=3, y=-6 d. no solution

37. If $\frac{3}{4} = \frac{x}{8}$, x=

a. 0 b. 6 c. 24 d. 96

38. Simplify $\sqrt{50}$

a. 2 b. $2\sqrt{5}$ c. $5\sqrt{2}$ d. 5

39. Multiply (x + 3)(x + 4)

a. $x^2 + 7x + 12$ b. $x^2 + 12$ c. $x^2 + 3x + 7$ d. $x^2 + 4x + 7$

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40. Solve for x: (x + 5) (x + 3) = 0

a. $x^2 - 2x - 15$ b. x=-5,x=-3 c. x=2,x=-2 d. x=5, x=-3

41. In the equation *y=mx+b*, which letter represents the slope?

a. y b. m c. x d. b

42. In the equation *y*=3*x* + 4, what is the y-intercept?

a. y b. 3 c. x d. 4

43. Factor $x^2 + 8x + 12$

a. (x+1)(x+12) b. (x+4)(x+3) c. (x-4)(x+3) d. (x+6)(x+2)

44. $x^2 * x^3 =$

a. x^0 b. x^1 c. x^5 d. x^6

45. $(x^2)^3 =$

a. x^0 b. x c. x^5 d. x^6

46. Express x^{-4} with a positive exponent:

a. x^4 b. $\frac{1}{x^4}$ c. x^0 d. 4x

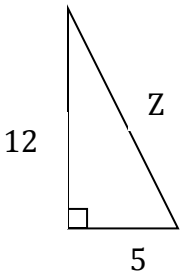
47. Write "6 more than x" as an algebraic expression.

a. x > 6 b. x = 6 c. x + 6 d. $x \neq 6$

48. What is 25% of 60?

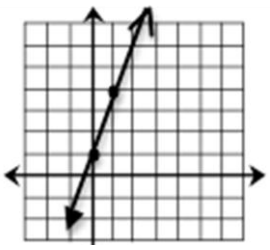
a. 6 b. 10 c. 15 d. 30

49. What is the length of Z in the triangle at right?



a. 8 b. 12 c. 13 d. 17

50. What is the equation of the line on the graph at right?



a. $y = 4x + 1$ b. $y = 3x + 1$ c. $y = \frac{1}{3}x + 1$ d. $y = x + 4$