**Math Placement Test**

1. 0.72 × 2.1 =
2. 5.8 + 1.6 =
3. 10 – 7.33 =
4. 9.5 ÷ 2.5 =
5. 1/5 + 1/3 =
6. 4/5 – 2/7 =
7. 2/6 ÷ 8/3 =
8. 5 × [19 – 3(4)] =
9. A swimming pool is 5 meters wide and 17 meters long. At $11 per meter, how much will fencing around the outside of the pool cost?
10. 6 – 42 ÷2(–4) =
11. Evaluate the expression 4a2b if a = –2 and b = –4.
12. Simplify by combining like terms: 2(2x + y) – 2(x – 3y) =
13. 3–2
14. Solve for x: x – 5 = – (4 – 2x)
15. The slope of the line through the points (–4, 2) and (0, 1) is:
16. Multiply: (2x – 5)(2x + 5) =
17. –(–3a)4
18. One of the factors of 6y2 + y is:
19. Solve the inequality for x: 3x + 4 > 7
20. Solve the inequality for x: 6 – 2(3 – x) < 3x + 5
21. Simplify: =
22. If I = rP, then P =
23. If 3x – 2y =z, then y =
24. If 4x – 3y = 12, then the y-intercept of the graph of this equation is:
25. Reduce: =
26. Factor: 3x2 – 12 =
27. Add: =
28. Subtract:
29. Multiply: =
30. Divide: =
31. One of the roots of is:
32. The graph of y = 3 is a: (a) line; (b) horizontal line; (c) vertical line; (d) parabola; (e) circle; (f) ellipse; (g) hyperbola; (h) none of the above.
33. The graph of x2 + y2 = 9 is a: (a) line; (b) horizontal line; (c) vertical line; (d) parabola; (e) circle; (f) ellipse; (g) hyperbola; (h) none of the above.
34. Simplify: =
35. If 3a + 2b – 4ab = 8, then b =
36. Solve for x: log327 = x
37. Solve for x: |x – 3| > 2
38. Find f(–1) if f(x) = 2x + 1
39. The graph of 3x –y = 2 and y = 2x –1 intersect at what point?
40. Which equation best describes this graph
41. A square lot has an area of 200 square feet. If *w* represents the length of a side, then an equation that can be used to determine the value of *w* is:
42. If 2x = 8, then the exact value of x is:
43. If f(x) = 3x – 1 and g(x) = x2 + 3, then f(g(x)) =
44. For an angle of radians in standard position, the terminal side of the angle lies in which quadrant?
45. On the figure shown below, cos *α* =
46. Suppose *θ* is an angle in standard position with terminal side in the second quadrant. If cos *θ* = – , then sin *θ* =
47. The vertex of the parabola y = x2 is at:
48. The vertex of the parabola 2x2 – 8x –y–3 = 0 is at: