AUC PreCalculus

The deadline for all homework assignments is the one specified in Archie before 11:59 pm. As discussed in class, It must be correctly uploaded in order to be graded. Show all your work and justifications.

For Exercises 37–48 find the zeros of the function and state the multiplicities.

37. $f(x) = x^3 + 2x^2 - 25x - 50$

40. $k(x) = -6x^3 + 26x^2 - 28x$

43. $p(x) = -3x(x + 2)^3(x + 4)$

38. $g(x) = x^3 + 5x^2 - x - 5$

41. $m(x) = x^5 - 10x^4 + 25x^3$

39. $h(x) = -6x^3 - 9x^2 + 60x$

45. $t(x) = 5x(3x - 5)(2x + 9)(x - \sqrt{3})(x + \sqrt{3})$

47. $c(x) = [x - (3 - \sqrt{5})][x - (3 + \sqrt{5})]$

44. $q(x) = -2x^4(x + 1)^3(x - 2)^2$

46. $z(x) = 4x(5x - 1)(3x + 8)(x - \sqrt{5})(x + \sqrt{5})$

48. $d(x) = [x - (2 - \sqrt{11})][x - (2 + \sqrt{11})]$

42. $n(x) = x^6 + 4x^5 + 4x^4$

For Exercises 63–74, sketch the function.

63. $f(x) = x^3 - 5x^2$

64. $g(x) = x^5 - 2x^4$

67. $k(x) = x^4 + 2x^3 - 8x^2$

68. $h(x) = x^4 - x^3 - 6x^2$

65. $f(x) = \frac{1}{2}(x - 2)(x + 1)(x + 3)$

66. $h(x) = \frac{1}{4}(x - 1)(x - 4)(x + 2)$

69. $k(x) = 0.2(x + 2)^2(x - 4)^3$

72. $q(x) = 9x^5 + 18x^4 - 4x^3 - 8x^2$

70. $m(x) = 0.1(x - 3)^2(x + 1)^3$

73. $t(x) = -x^4 + 11x^2 - 28$

71. $p(x) = 9x^5 + 9x^4 - 25x^3 - 25x^2$

74. $v(x) = -x^4 + 15x^2 - 44$