AUC PreCalculus

Assignment 26.

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 73–82, determine the x- and y-intercepts for the given function.

73. $f(x) = 2x - 4$

74. $g(x) = 3x - 12$

76. $k(x) = -|x| + 2$

77. $p(x) = -x^2 + 12$

79. $r(x) = |x - 8|$

80. $s(x) = |x + 3|$

82. $g(x) = -\sqrt{x} + 3$

78. $q(x) = x^2 - 8$

75. $h(x) = |x| - 8$

81. $f(x) = \sqrt{x} - 2$

For Exercises 95–108, write the domain in interval notation.

95. $f(x) = \dfrac{x - 3}{x - 4}$ $(-\infty, 4) \cup (4, \infty)$

96. $g(x) = \dfrac{x + 6}{x - 2}$ $(-\infty, 2) \cup (2, \infty)$

98. $k(a) = \dfrac{4a}{3a + 4}$ $\left(-\infty, -\frac{4}{3}\right) \cup \left(-\frac{4}{3}, \infty\right)$

99. $m(x) = \dfrac{6}{|x| + 4}$ $(-\infty, \infty)$

101. $r(a) = \sqrt{a + 15}$ $[-15, \infty)$

102. $f(c) = \sqrt{c + 12}$ $[-12, \infty)$

104. $k(x) = \dfrac{\sqrt{6 - x}}{-3}$ $(-\infty, 6]$

105. $s(x) = \dfrac{5}{\sqrt{3 - x}}$ $(-\infty, 3)$

107. $p(x) = 3x^2 - 4x + 1$ $(-\infty, \infty)$

108. $q(x) = -2x^2 + 8x - 3$ $(-\infty, \infty)$

97. $h(t) = \dfrac{2t}{2t + 7}$ $\left(-\infty, -\frac{7}{2}\right) \cup \left(-\frac{7}{2}, \infty\right)$

103. $t(x) = \dfrac{\sqrt{3 - x}}{5}$ $(-\infty, 3]$

100. $n(x) = \dfrac{-7}{x^2 + 3}$ $(-\infty, \infty)$

106. $h(x) = \dfrac{-3}{\sqrt{6 - x}}$ $(-\infty, 6)$