Pre-Calculus Test 7th Review

Please complete the indicated problems from each section on your review (it will count as a quiz grade). Your review is due the day of the test (A day:_____, B day:_____). You are responsible for this content whether or not you in class at the time. See www.CalcChat.com (Chapter 5:Section Review) for worked out solutions to odd numbered exercises.

4.2

Finding a Point on the Unit Circle **In Exercises 41–48, find the point (x, y) on the unit circle that corresponds to the real number t.**

41. $t = \frac{7\pi}{4}$

42. $t = \frac{3\pi}{4}$

43. $t = \frac{5\pi}{6}$

44. $t = \frac{4\pi}{3}$

45. $t = -\frac{2\pi}{3}$

46. $t = -\frac{7\pi}{6}$

47. $t = -\frac{5\pi}{4}$

48. $t = -\frac{5\pi}{6}$

Evaluating Trigonometric Functions **In Exercises 85–90, the point is on the terminal side of an angle in standard position. Determine the exact values of the six trigonometric functions of the angle.**

85. $(12, 16)$

86. $(2, 10)$

87. $(-7, 2)$

88. $(3, -4)$

89. $\left(\frac{2}{3}, \frac{5}{8}\right)$

90. $\left(-\frac{10}{3}, -\frac{2}{3}\right)$

Evaluating Trigonometric Functions **In Exercises 91–94, find the values of the other five trigonometric functions of θ satisfying the given conditions.**

91. $\sec\theta = \frac{6}{5}, \quad \tan\theta < 0$

92. $\tan\theta = -\frac{12}{5}, \quad \sin\theta > 0$

93. $\sin\theta = \frac{3}{8}, \quad \cos\theta < 0$

94. $\cos\theta = -\frac{2}{5}, \quad \sin\theta > 0$

Finding a Reference Angle **In Exercises 95–102, find the reference angle θ'. Sketch θ in standard position and label θ'.**

95. $\theta = 330°$

96. $\theta = -240°$

97. $\theta = \dfrac{5\pi}{4}$

98. $\theta = -\dfrac{9\pi}{4}$

99. $\theta = 264°$

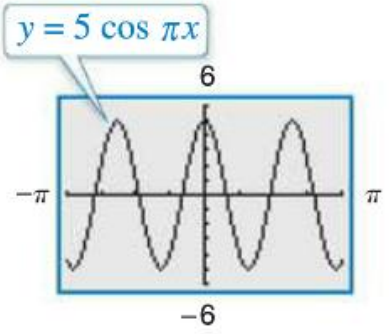
100. $\theta = 635°$

101. $\theta = -\dfrac{6\pi}{5}$

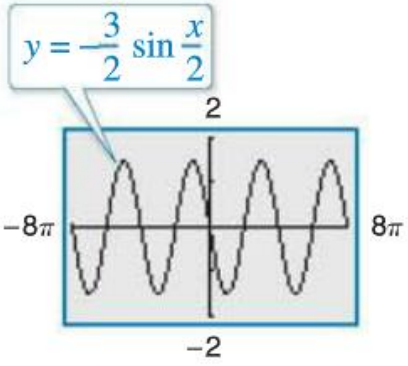
102. $\theta = \dfrac{17\pi}{3}$

Finding the Period and Amplitude **In Exercises 119–122, find the period and amplitude.**

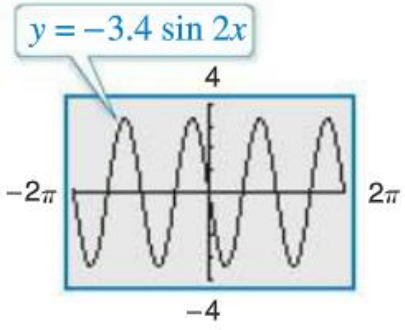
119.



120.



121.



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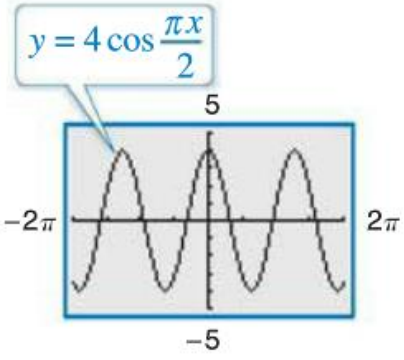


Graphing Sine and Cosine Functions **In Exercises 123–134, sketch the graph of the function. (Include two full periods.)**

123. $f(x) = 3 \cos 2\pi x$

124. $f(x) = -2 \sin \pi x$

125. $f(x) = 5 \sin \dfrac{2x}{5}$

126. $f(x) = 8 \cos\left(-\dfrac{x}{4}\right)$

127. $f(x) = -\dfrac{5}{2} \cos \dfrac{x}{4}$

127. $f(x) = -\dfrac{5}{2} \cos \dfrac{x}{4}$

128. $f(x) = -\dfrac{1}{2} \sin \dfrac{\pi x}{4}$

129. $f(x) = \frac{5}{2} \sin(x - \pi)$

130. $f(x) = 3 \cos(x + \pi)$

131. $f(x) = 2 - \cos \dfrac{\pi x}{2}$

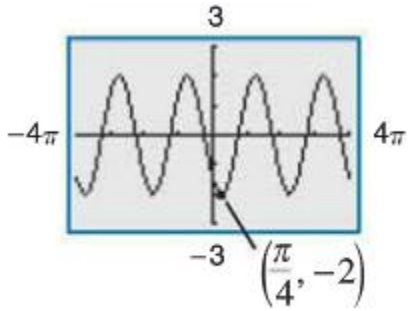
132. $f(x) = \frac{1}{2} \sin \pi x - 3$

133. $f(x) = -3 \cos\left(\dfrac{x}{2} - \dfrac{\pi}{4}\right)$

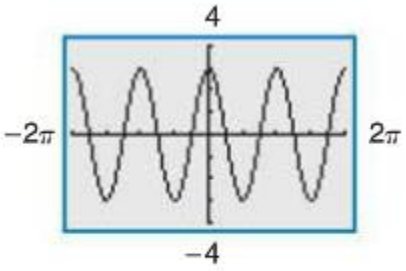
134. $f(x) = 4 - 2 \cos(4x + \pi)$

Finding an Equation of a Graph **In Exercises 135–138, find a, b, and c for the function $f(x) = a\cos(bx - c)$ such that the graph of f matches the graph shown.**

135.



136.



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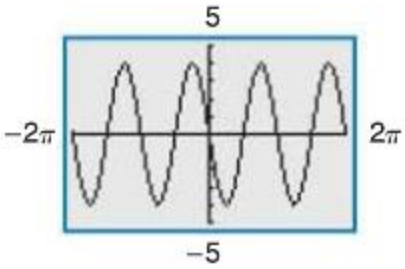
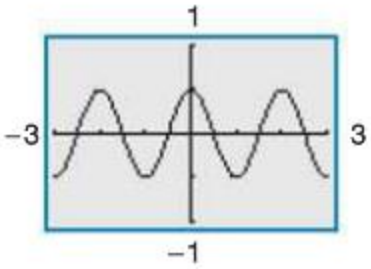


138.



4.6

Library of Parent Functions **In Exercises 141–154, sketch the graph of the function. (Include two full periods.)**

141. $f(x) = -\tan\dfrac{\pi x}{4}$

142. $f(x) = 4\tan \pi x$