

Chapter Test (page 510)

1. $\sin \theta = -\frac{3\sqrt{13}}{13}$

2. 1

3. 1

$$\cos \theta = -\frac{2\sqrt{13}}{13}$$

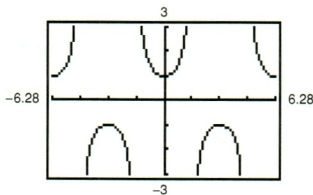
$$\csc \theta = -\frac{\sqrt{13}}{3}$$

$$\sec \theta = -\frac{\sqrt{13}}{2}$$

$$\cot \theta = \frac{2}{3}$$

4. $\csc \theta \sec \theta$ 5. $\theta = 0, \frac{\pi}{2} < \theta < \pi, \frac{3\pi}{2} < \theta < 2\pi$

6.



$$y_1 = y_2$$

7.–12. Answers will vary.

13. $0, \frac{3\pi}{4}, \pi, \frac{7\pi}{4}$

14. $\frac{\pi}{6}, \frac{\pi}{2}, \frac{5\pi}{6}, \frac{3\pi}{2}$

15. $\frac{\pi}{6}, \frac{5\pi}{6}, \frac{7\pi}{6}, \frac{11\pi}{6}$

16. $\frac{\pi}{6}, \frac{5\pi}{6}, \frac{3\pi}{2}$

17. $-2.938, -2.663, 1.170$

18. $|\cos^2 x + \cos x| \leq 2$ for all x

19. $\frac{\sqrt{2} - \sqrt{6}}{4}$

20. $\sin 2u = \frac{4}{5}, \tan 2u = -\frac{4}{3}$