

Quiz Review 7.6-7.10
Module 3, Unit 7

Find the exact value of each expression. Show all necessary work.

1. $\sin^{-1}\left(-\frac{1}{2}\right) =$

2. $\tan^{-1}(-\sqrt{3}) =$

3. $\cos^{-1}\left(-\frac{1}{2}\right) =$

4. $\tan^{-1}1 =$

5. $\sin^{-1}\left(\frac{\sqrt{3}}{2}\right) =$

6. $\cos^{-1}\left(\frac{\sqrt{2}}{2}\right) =$

7. $\sin^{-1}\left(\sin\frac{3\pi}{4}\right) =$

8. $\tan(\tan^{-1}9) =$

9. $\cos^{-1}\left[\cos\frac{2\pi}{3}\right] =$

10. $\tan^{-1}\left[\tan\frac{7\pi}{6}\right] =$

11. $\sin(\sin^{-1} 0.7) =$

12. $\cos(\cos^{-1} 4) =$

13. $\cot\left(\sin^{-1}\frac{4}{5}\right) =$

14. $\csc\left[\tan^{-1}\left(-\frac{12}{5}\right)\right] =$

15. $\sec\left(\tan^{-1}\frac{2}{3}\right) =$

16. $\csc\left[\cos^{-1}\left(-\frac{1}{3}\right)\right] =$

Graph one period.

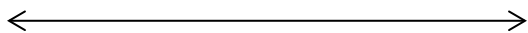
17. $y = \tan\left(2x + \frac{\pi}{2}\right)$

Critical Points: _____

Period: _____

Interval: _____

Asymptotes: _____



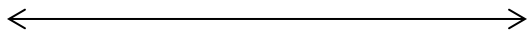
18. $f(x) = \cos\left(2\pi x + \frac{\pi}{2}\right) - 1$

Amplitude: _____

Period: _____

Interval: _____

Phase Shift: _____



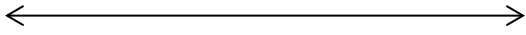
$$19. y = -2 \cot\left(\pi x + \frac{\pi}{4}\right) + 1$$

Critical Points: _____

Period: _____

Interval: _____

Asymptotes: _____

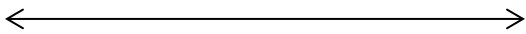


$$20. y = -\csc 4\pi x - 1$$

Amplitude: _____

Period: _____

Interval: _____



Answers

1. $-\frac{\pi}{6}$

6. $\frac{\pi}{4}$

13. $\frac{3}{4}$

2. $-\frac{\pi}{3}$

7. $\frac{\pi}{4}$

14. $-\frac{13}{12}$

3. $\frac{2\pi}{3}$

8. 9

15. $\frac{\sqrt{13}}{3}$

4. $\frac{\pi}{4}$

10. $\frac{\pi}{6}$

16. $\frac{3\sqrt{2}}{4}$

5. $\frac{\pi}{3}$

11. 0.7

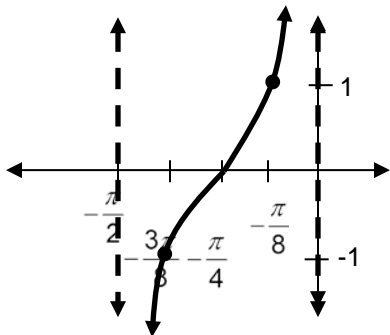
12. Not possible, not in domain

17. Critical Points: $-1, 1$

Period: $\frac{\pi}{2}$

Interval: $\frac{\pi}{8}$

Asymptotes: $x = -\frac{\pi}{2}$ and $x = 0$

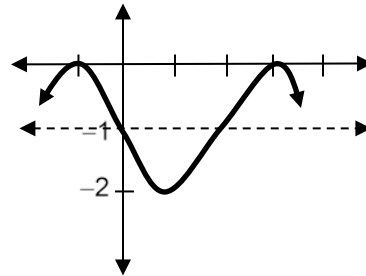


18. Amplitude: 1

Period: 1

Interval: $\frac{1}{4}$

Phase Shift: $-\frac{1}{4}$

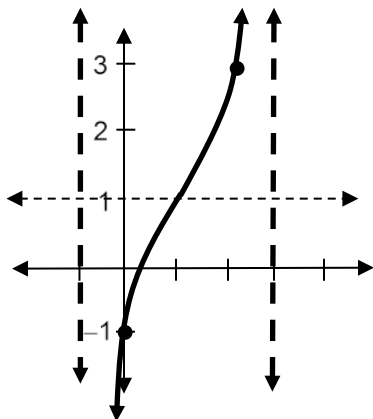


19. Critical Points: $-2, 2$

Period: 1

Interval: $\frac{1}{4}$

Asymptotes: $x = -\frac{1}{4}$ and $x = \frac{3}{4}$



20. Amplitude: 1

Period: $\frac{1}{2}$

Interval: $\frac{1}{8}$

