

Welcome back WS

Complete the following worksheet on a separate sheet of paper.

Accurately graph at least 2 cycles of the following graphs. In addition identify the vertical asymptotes, starting point and period.

$$1. y = 3 \sin\left(\frac{\pi}{4}x - \frac{\pi}{2}\right) + 1$$

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

$$3. y = \sec(x + \pi) - 3$$

$$4. y = -2 \csc\left(\frac{x}{3}\right) + 3$$

$$5. y = 2 \cot\left(x + \frac{\pi}{4}\right) - 4$$

$$6. y = -1.5 \tan \frac{x}{4}$$

Find the exact value of each expression if it exists

$$7. \sin^{-1} \frac{\sqrt{3}}{2}$$

$$8. \cos^{-1} \frac{1}{2}$$

$$9. \arcsin\left(-\frac{\sqrt{2}}{2}\right)$$

$$10. \arctan 1$$

$$11. \cos^{-1} 1$$

$$12. \sin^{-1} \pi$$

$$13. \csc^{-1}(-2)$$

$$14. \tan^{-1}(-\sqrt{3})$$

$$15. \sin^{-1}\left(\sin \frac{\pi}{4}\right)$$

$$16. \tan^{-1}\left(\tan \frac{\pi}{2}\right)$$

$$17. \cos\left(\cos^{-1} \frac{2}{3}\right)$$

$$18. \cos^{-1}\left(\cos \frac{3\pi}{2}\right)$$