Trigonometry
Evaluating Principle Inverse Trig Functions - Homework

Evaluate the principle/exact value of each inverse trig function.

1. $\sin^{-1}\left(\frac{\sqrt{3}}{2}\right)$
2. $\sin^{-1}\left(-\frac{\sqrt{2}}{2}\right)$
3. $\sin^{-1}(0)$
4. $\sin^{-1}(-1)$
5. $\sin^{-1}(1)$
6. $\cos^{-1}\left(-\frac{\sqrt{3}}{2}\right)$
7. $\cos^{-1}\left(-\frac{\sqrt{2}}{2}\right)$
8. $\cos^{-1}\left(-\frac{1}{2}\right)$
9. $\cos^{-1}(0)$
10. $\cos^{-1}(-1)$
11. $\cos^{-1}(1)$
12. $\tan^{-1}\left(\frac{\sqrt{3}}{3}\right)$
13. $\tan^{-1}(-1)$
14. $\tan^{-1}(0)$
15. $\tan^{-1}\left(-\sqrt{3}\right)$

Answer the following questions about trig functions.

16. Name four values of θ *(in degrees)* such that $y = \tan\theta$ equals -1.

17. Name four values of θ *(in radians)* such that $y = \tan\theta$ is undefined.

18. Name four values of θ *(in radians)* such that $y = \sin\theta$ equals 1?

19. How often *(in degrees)* does $y = \sin\theta$ equal 0?

20. Name four values of θ *(in degrees)* such that $y = \cos\theta$ equals -1?