Test 8 Review WS

Find the exact value. DO NOT USE YOUR CALCULATOR!

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

2. $\cos^{-1}\left(-\dfrac{\sqrt{2}}{2}\right)$

3. $\tan^{-1}\dfrac{\sqrt{3}}{3}$

4. $\sin^{-1}\left(-\dfrac{\sqrt{3}}{2}\right)$

5. $\cos\left(\arctan\dfrac{4}{3}\right)$

6. $\sec\left(\arcsin\dfrac{15}{17}\right)$

7. $\csc\left(\tan^{-1}\dfrac{1}{2}\right)$

8. Give the domain and range for the following functions without using your calculator.

    A. $y = \cos^{-1} x$ D. $y = \sin^{-1} x$

    B. $y = \sin x$ E. $y = \cos x$

    C. $y = \tan^{-1} x$

9. Find the least positive angle that is coterminal with $-\dfrac{102\pi}{5}$

Test 8 Review WS

Find the exact value. DO NOT USE YOUR CALCULATOR!

1. $\sin^{-1} 1$ $\pi/2$

2. $\cos^{-1}\left(-\dfrac{\sqrt{2}}{2}\right)$ $\dfrac{3\pi}{4}$

3. $\tan^{-1}\dfrac{\sqrt{3}}{3}$ $\pi/6$

4. $\sin^{-1}\left(-\dfrac{\sqrt{3}}{2}\right)$ $-\pi/3$

5. $\cos\left(\arctan\dfrac{4}{3}\right)$ $3/5$

6. $\sec\left(\arcsin\dfrac{15}{17}\right)$ $17/8$

7. $\csc\left(\tan^{-1}\dfrac{1}{2}\right)$ $\sqrt{5}$

8. Give the domain and range for the following functions without using your calculator.

   A. $y = \cos^{-1} x$ D: $[-1, 1]$ R: $[0, \pi]$

   D. $y = \sin^{-1} x$ D: $[-1, 1]$ R: $[-\pi/2, \pi/2]$

   B. $y = \sin x$ D: $(-\infty, \infty)$ R: $[-1, 1]$

   E. $y = \cos x$ D: $(-\infty, \infty)$ R: $[-1, 1]$

   C. $y = \tan^{-1} x$ D: $(-\infty, \infty)$ R: $(-\pi/2, \pi/2)$

9. Find the least positive angle that is coterminal with $-\dfrac{102\pi}{5}$ $8\pi/5$