

Find the exact value of each expression:

1) $\cos(\sin^{-1} \frac{\sqrt{2}}{2})$
 $\frac{\sqrt{2}}{2}$

2) $\sin(\cos^{-1} \frac{1}{2})$
 $\frac{\sqrt{3}}{2}$

3) $\tan(\cos^{-1}(-\frac{\sqrt{3}}{2}))$
 $-\frac{\sqrt{3}}{3}$

4) $\tan[\sin^{-1}(-\frac{1}{2})]$
 $-\frac{\sqrt{3}}{3}$

5) $\sec(\cos^{-1} \frac{1}{2})$
 2

6) $\sin[\tan^{-1}(-1)]$
 $-\frac{\sqrt{2}}{2}$

7) $\cos[\sin^{-1}(-\frac{\sqrt{3}}{2})]$
 $\frac{1}{2}$

8) $\sin^{-1}[\sin(-\frac{7\pi}{6})]$
 $\frac{\pi}{6}$

9) $\cos[\cos(-\frac{\pi}{3})]$
 $\frac{1}{3}$

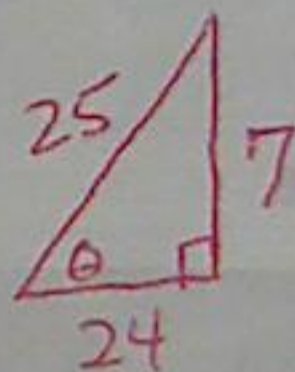
10) $\cos^{-1}(\cos \frac{5\pi}{4})$
 $\frac{3\pi}{4}$

11) $\sin[\tan^{-1} 1]$
 $\frac{\sqrt{2}}{2}$

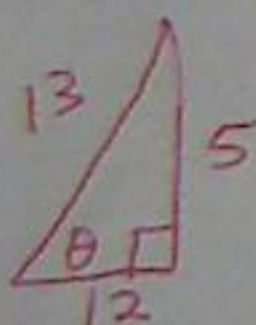
12) $\cos^{-1}(\sin \frac{7\pi}{6})$
 $\frac{2\pi}{3}$

13) $\tan(\cos^{-1}(\frac{3}{5}))$
 $\frac{4}{3}$

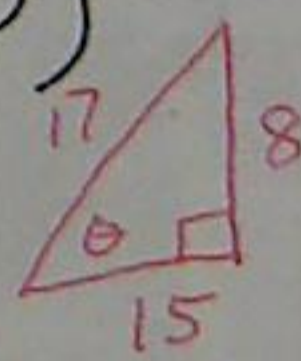
14) $\sin(\cot^{-1}(\frac{24}{7}))$
 $\frac{7}{25}$



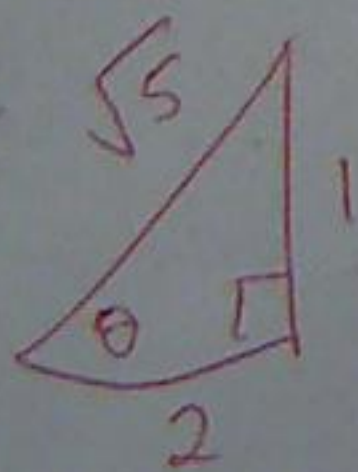
15) $\sec(\sin^{-1}(\frac{5}{13}))$
 $\frac{13}{12}$



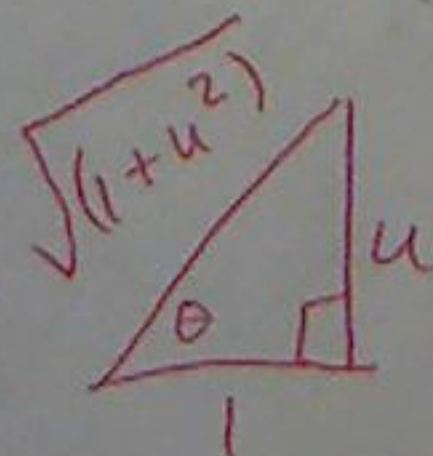
16) $\cos(\sin^{-1}(-\frac{8}{17}))$
 $\frac{15}{17}$



34) $\csc(\tan^{-1}(\frac{1}{2}))$
 $\sqrt{5}$



35) $\cos(\tan^{-1} u)$
 $\frac{1}{\sqrt{1+u^2}}$



$\frac{1}{\sqrt{1+u^2}}$