

Find the exact value.

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

$\cos\left(-\frac{\pi}{4}\right)$

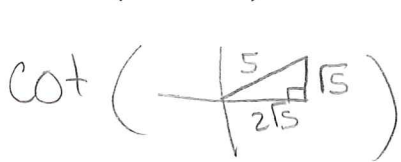
$\boxed{\frac{\sqrt{2}}{2}}$

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

$\cos\left(\frac{\pi}{6}\right)$

$\boxed{\frac{\sqrt{3}}{2}}$

3.) $\cot\left(\arcsin\frac{\sqrt{5}}{5}\right)$



$5^2 = (\sqrt{5})^2 + x^2$
 $20 = x^2$
 $\sqrt{20} = x$
 $2\sqrt{5} =$

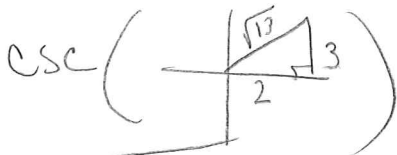
$\frac{2\sqrt{5}}{\sqrt{5}}$
 $\boxed{2}$

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

$\sin\left(-\frac{\pi}{6}\right)$

$\boxed{-\frac{1}{2}}$

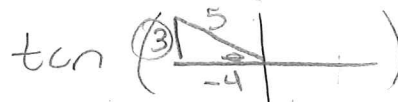
5.) $\csc\left(\tan^{-1}\frac{3}{2}\right)$



$r^2 = 3^2 + 2^2$
 $r^2 = 13$
 $r = \sqrt{13}$

$\frac{\sqrt{13}}{3}$
 $\boxed{\frac{\sqrt{13}}{3}}$

6.) $\tan\left(\arcsin\frac{4}{5}\right)$



$5^2 = (-4)^2 + y^2$
 $9 = y^2$
 $3 = y$

$\frac{-3}{4}$
 $\boxed{-\frac{3}{4}}$

7.) $\sin\left(\arccos\frac{\sqrt{3}}{2}\right)$

$\sin\left(\frac{5\pi}{6}\right)$

$\boxed{\frac{1}{2}}$

8.) $\sec\left(\arctan\frac{\sqrt{5}}{2}\right) - \frac{2}{\sqrt{5}}$




$(\sqrt{5})^2 + 2^2 = r^2$
 $9 = r^2$
 $3 = r$

$\frac{3}{\sqrt{5}}$
 $\boxed{\frac{3}{\sqrt{5}}}$

9.) $\cos(\cos^{-1} 1)$
 $\cos(0)$
 $\boxed{1}$

10.) $\cos\left(\arcsin \frac{1}{3}\right)$



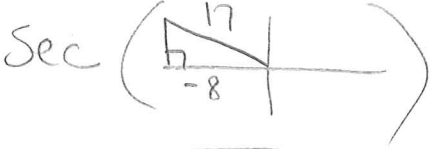
$\cos\left(\frac{\pi}{6}\right)$

$$\boxed{\frac{2\sqrt{2}}{3}}$$

$3^2 = 1^2 + x^2$
 $8 = x^2$
 $\sqrt{8} = x$
 $2\sqrt{2}$

11.) $\cos\left(\arcsin \frac{1}{2}\right)$
 $\cos\left(\frac{\pi}{6}\right)$
 $\boxed{\frac{\sqrt{3}}{2}}$

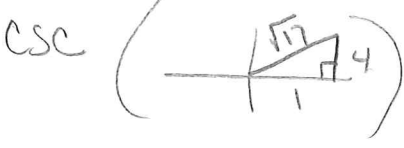
12.) $\sec\left(\cos^{-1} \frac{8}{17}\right)$



$\sec\left(\frac{\pi}{6}\right)$

$$\boxed{-\frac{17}{8}}$$

13.) $\csc(\tan^{-1} 4)$



$\csc\left(\frac{\pi}{6}\right)$

$$\boxed{\frac{\sqrt{17}}{4}}$$


$r^2 = 1^2 + 4^2$
 $r^2 = 17$
 $r = \sqrt{17}$

14.) $\sin\left[\arccos\left(+\frac{1}{2}\right)\right]$

$\sin\left(\frac{\pi}{3}\right)$

$$\boxed{\frac{\sqrt{3}}{2}}$$

15.) $\tan\left(\arccos \frac{2}{7}\right)$



$\tan\left(\frac{\pi}{6}\right)$

$$\boxed{\frac{3\sqrt{5}}{2}}$$

$7^2 = 2^2 + y^2$
 $45 = y^2$
 $\sqrt{45} = y$
 $3\sqrt{5}$

16.) $\cos(\arctan 1)$

$\cos\left(\frac{\pi}{4}\right)$

$$\boxed{\frac{\sqrt{2}}{2}}$$