# VIDYA SHREE ACADEMY SR. SEC. SCHOOL <br> An English Medium Co.Ed. School | Science \& Commerce 

Class $-12^{\text {th }}$

## Chapter-2

Subject Maths

## Inverse Trigonometry Fuctions

Find the value of the following:

1. $\cos ^{-1}\left(\cos \frac{13 \pi}{6}\right)$
2. $\tan ^{-1}\left(\tan \frac{7 \pi}{6}\right)$

Prove that
3. $2 \sin ^{-1} \frac{3}{5}=\tan ^{-1} \frac{24}{7}$
4. $\sin ^{-1} \frac{8}{17}+\sin ^{-1} \frac{3}{5}=\tan ^{-1} \frac{77}{36}$
5. $\cos ^{-1} \frac{4}{5}+\cos ^{-1} \frac{12}{13}=\cos ^{-1} \frac{33}{65}$
6. $\cos ^{-1} \frac{12}{13}+\sin ^{-1} \frac{3}{5}=\sin ^{-1} \frac{56}{65}$
7. $\tan ^{-1} \frac{63}{16}=\sin ^{-1} \frac{5}{13}+\cos ^{-1} \frac{3}{5}$
8. $\tan ^{-1} \frac{1}{5}+\tan ^{-1} \frac{1}{7}+\tan ^{-1} \frac{1}{3}+\tan ^{-1} \frac{1}{8}=\frac{\pi}{4}$

