National Institute of Open Schooling (NIOS)
Secondary Course
Lesson –22: Introduction to Trigonometry
Worksheet – 22

1. In triangle ABC, ĐB = 90°, AB = 12 cm and AC = 13. Find out the value of sec A, cosec C and cot A.

2. If $\sin A = \dfrac{5}{13}$, find the value of $3\cos A - 13\cos^2 A$

3. The sine of an angle to its cosine is 8 : 6, find the actual value of Sin and Cos angle .

4. If $\tan(A+B) = \sqrt{3}$ and $\tan(A-B) = \dfrac{1}{\sqrt{3}}$, $0^0 < A+B < 90^0$ and $A > B$, find A and B.

5. If $\cos A + \cos^2 A = 1$, then find the value of $\sin^2 A + \sin^4 A$.

6. Given that $A+B = 90^0$, show that $\sqrt{\cos A \cos ecB - \cos A \sin B} = \sin A$

7. If $2\sin^2 - {}^2 = $, find the value of θ.

8. Prove that $3 \tan 15^0 \tan 25^0 \tan 65^0 \tan 75^0 = 3$

9. Prove that : $\dfrac{\sin +}{\sin -} + \dfrac{-}{+} = \dfrac{}{{}^2 - {}^2}$

10. If $\tan^4 \theta + \tan^2 \theta = 1$, then show that $\cos^4 \theta + \cos^2 \theta = 1$