

TALLER 13:
IDENTIDADES TRIGONOMÉTRICAS

Nombre: _____ Curso: _____

Docente: _____ Fecha: _____

Demostrar las siguientes identidades trigonométricas

1. $\cos x \cdot \sec x = 1$

2. $\sin x \cdot \csc x = 1$

3. $(1 + \cos x)(1 - \cos x) = \sin^2 x$

4. $\frac{\sin x}{1 - \cos x} = \csc x$

5. $\frac{\cos x}{\sin x} + \sin x = \csc x$

6. $\tan^2 x \cos^2 x = 1 - \cos^2 x$

7. $\frac{\csc x}{\cot x + \tan x} = \cos x$

8. $\sec x + \tan x = \frac{\cos x}{1 - \sin x}$

9. $\frac{1 + \sin x}{\sin x} = 1 + \cos x$

10. $\frac{\sin^2 x - \tan^2 x}{\csc x} = \sin x$

11. $\frac{\sin x}{\cos x + 1} + \frac{\cos x}{\sec x} = 1$

12. $\frac{\cos x}{\csc x} + \frac{\cos x}{\sec x - 1} = 2 \tan x$

13. $\frac{1 - \cos x}{1 + \cos x} = \frac{\sec x - 1}{\sec x + 1}$

14. $\frac{1}{\csc^2 x} + \frac{1}{\sec^2 x} = 1$

15. $\cot x + \frac{\sin x}{1 + \cos x} = \cos x$