Group members: _____

Pass the Trigonometric Proof

Write the Pythagorean Identities

(Write one and pass it on. The next person checks previous person's work)

- 1.
- 2.
- 3.

Prove the Identities

(Write one step and pass it on. Then next person checks previous person's work)

1.
$$\frac{\tan^2 x + 1}{1 + \cot^2 x} = \tan^2 x$$

2. $\frac{\sin^2 \alpha \cot^2 \alpha}{1 - \sin^2 \alpha} = 1$

3.
$$-\cos^2 x \sin^2 x = \frac{\cos^2 x}{-1 - \cot^2 x}$$
 4. $\sin \theta + \cos \theta = \frac{\tan \theta + 1}{\sec \theta}$

$$5. \ \frac{\tan x - \tan x \sin^2 x}{2 \sin x \cos x} = \frac{1}{2}$$

 $6. \ \frac{1+\cot x}{\csc x} = \sin x + \cos x$

CHALLENGE: As a group, write your own identity for another group to prove.