

Name: _____

Date: 10/27/25

Session 11

Proving identities

a) $\frac{\tan \theta}{\sin \theta} = \sec \theta$

b) $\cos(-x) - \sin(-x) = \cos x + \sin x$

Evaluate each expression under the given conditions:

a) $\sin(\theta - \phi)$; $\sin \theta = 4/5$ in QII
 $\tan \phi = 1/3$ in QIII

Find $\sin 2x$, $\cos 2x$ and $\tan 2x$ if

a) $\cos x = 4/5$, $\csc \angle O$

b) $\sin x = -3/5$, x in Quadrant III

c) $\sin x = 1/7$ in QII $\leftarrow$ only find $\sin 2\theta$

If we have time !!

↓
Prove the identities (Using half-angle formulas)

$$a) \frac{\sin x + \sin y}{\cos x + \cos y} = \tan\left(\frac{x+y}{2}\right)$$