

PC12 LG 10A (Formative Assessment)

Marking Teacher: _____

Name: _____

Student #: _____

1. For what trigonometric values is the following expression undefined: $\frac{\csc x}{1 + \tan x}$

2. Write each of the following as a single trigonometric function:

a) $8 \sin 6x \cos 6x$

b) $10 \cos^2 13 - 5$

c) $\cos 6x \cos 3x - \sin 6x \sin 3x$

d) $\frac{\tan 2\pi + \tan 4\pi}{1 - \tan 2\pi \tan 4\pi}$

e) $16 \sin^2 10x - 8$

f) $\frac{2 \tan 5x}{1 - \tan^2 5x}$

3. Determine the exact value for $\cos 15^\circ$.

4. If $\sin A = \frac{-3}{5}$ and $\cos B = \frac{-12}{13}$, and both angles are in quadrant III, evaluate each of the following:

a) $\cos(A + B)$

b) $\cos 2A$

5. Prove each of the following identities:

1.
$$\frac{\cot^2 A}{\cos A \csc^2 A + \cot A} = \sec A - \tan A$$

b)
$$\frac{\sin 2x}{1 - \sin^2 x} = 2 \tan x$$

c)
$$\frac{1 - \cos 2x}{1 - \sin^2 x} = \frac{2}{\cot^2 x}$$

Directions: See me about this Move on to next guide Review and redo

PC12 LG 10B (Formative Assessment)

Marking Teacher: _____

Name: _____

Student #: _____

1. For what trigonometric values is the following expression undefined: $\frac{\sec x}{\cot x - 1}$

2. Write each of the following as a single trigonometric function:

a) $18\sin 5x \cos 5x$

b) $12\cos^2 15 - 6$

c) $\sin 6x \cos 4x - \cos 6x \sin 4x$

d) $\frac{\tan 12\pi + \tan 4\pi}{1 - \tan 12\pi \tan 4\pi}$

e) $3 - 6\sin^2 12A$

f) $\frac{2\tan 8x}{1 - \tan^2 8x}$

3. Determine the exact value for $\sin \frac{13\pi}{12}$.

4. If $\sin A = \frac{-5}{13}$ and $\cos B = \frac{4}{5}$, and both angles are in quadrant IV, evaluate each of the following:

a) $\sin(A - B)$

b) $\cos 2B$

5. Prove each of the following identities:

1. $\frac{1}{1 + \cos A} + \frac{1}{1 - \cos A} = 2 \csc^2 A$

b) $\tan x + \sec x = \frac{\cos x}{1 - \sin x}$

c) $\frac{\cos 2x + 1}{\cot^2 x} = \frac{2}{\csc^2 x}$

Directions: See me about this Move on to next guide Review and redo