Class Name : **MATH 1050/1051 Fall 2018**   Instructor Name : **Nguyen**

Student Name : _____   Instructor Note :

1. Simplify.

$$\cos^2 x - \sin^2 x \cos^2 x$$

Use algebra and the fundamental trigonometric identities.
Your answer should be a number or use a single trigonometric function.

2. Find the exact value of $\tan \dfrac{11\pi}{12}$ by using a sum or difference formula.

3. Find $\sin 2x$, $\cos 2x$, and $\tan 2x$ if $\sin x = -\dfrac{2}{\sqrt{5}}$ and x terminates in quadrant IV.

4. Use a half-angle formula to find the exact value of $\tan 67.5°$.

Obj. 11 #5 Answers for class MATH 1050/1051 Fall 2018

1. $\cos^4 x$

2. $\dfrac{-\sqrt{3}+1}{1+\sqrt{3}}$

3. $\sin 2x = -\dfrac{4}{5}$

$\cos 2x = -\dfrac{3}{5}$

$\tan 2x = \dfrac{4}{3}$

4. $\tan 67.5^{\circ} = \sqrt{2}+1$