

Name \_\_\_\_\_

Date \_\_\_\_\_

## Pythagorean Identities - Step-by-Step Lesson

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



### Explanation:

Step 1) First we have to see what is being asked.

"Simplify:  $\sin x \cos^2 x - \sin x$ ."

Step 2) Now, we will start factoring:

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

$$= \sin(-\sin^2 x)$$

$$= \sin^3 x$$

Answer is:  $\sin^3 x$

