## **Trigonometric Identities Again!**

We can now add to our list of basic identities......

More Pythagorean Identities

Double Angle Identities

## Example 1

If  $\cos x = \frac{-4}{5}, \frac{\pi}{2} < x < \pi$ , find the value of  $\sin 2x$  and  $\cos 2x$ .

Prove the following identities:

## Example 2

 $2\cos x \cos y = \cos(x+y) + \cos(x-y)$ 

## Example 3

 $2\cot 2x = \cot x - \tan x$