Proving Trigonometric Identities

To prove an identity, the left hand side of the equation should be handled separately to the right hand side, i.e. use LS/RS method.

In general there are certain ‘rules’ or guidelines to help:

* Use algebra or previous identities to transform one side to another.
* Write the entire equation in terms of one trig. Function.
* The majority of times, express everything in terms of sines and cosines.
* Transform both LS and RS to the same expression.

Prove each of the following identities.



**5.** Factor: a) *x*2 – 9 b)

**6.** Use this factoring method to prove

**7.**

**8.**

**9.**

**10.**

Homework: pg. 417 #9, 10a, 11a

Solutions to this worksheet are posted on the wiki ☺