**4.5 Sum and Difference Properties (3) Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_­­­­­**

**Show that the trig functions do NOT distribute over addition and subtraction by letting and :**

1.  2. 

3.  4. 

**Demonstrate that the given property is true by substituting  and :**

5. 

6. 

**Prove that the given equation is an identity:**

7.  8. 

9.  10. 

11.  12. 

13.  14. 

15. 

Hint: Don’t foil!