Calculus Section 5.6 Inverse Trig Differentiation  
-Differentiate an inverse trig function.

Homework: page 372 #’s 39 – 48, 77, 78

**Derivatives of Inverse Trig Functions**Let *u* be a differentiable function of x.

1) [arcsin *u*] = 2) [arccos *u*] =

3) [arctan *u*] = 4) [arccot *u*] =

5) [arcsec *u*] = 6) [arccsc *u*] =

**Proof)**

**Examples)**1)[arcsin(2x)] 2)[arctan(3x)]

3) [arccos()] 4) [arcsec(e2x)]

Where are the points of inflection for the graph of y = (arctanx)2?