Calculus Section 5.6 Inverse Trig Functions
-Develop properties of the six inverse trigonometric functions

Homework: page 372 #’s 3–13 odd, 15-20, 25–35 odd (Hint #35 take sin of both sides)

None of the six trig functions have inverses. Being periodic makes all of them fail to horizontal line test.

However, you can \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ the domain for the trig functions to allow them to have an inverse.

**Inverse Trig Functions and Their Restricted Domains**

arcsinx

arccosx

arctanx

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arccotx

arcsecx

arccscx

**Examples**1) arcsin(-1/2) 2) arccos(0) 3) $arctan⁡\left(\sqrt{3}\right)$

4) arctan(2x – 3) = $\frac{π}{4}$ 5) Use a calculator to evaluate arccsc(2.590)

**Using Right Triangles**
4) Find cos(arcsin(x)) 5) Find $tan⁡\left(arcsec\left(\frac{\sqrt{5}}{2}\right)\right)$