MATH 150

Today

1. WeBWorK
2. 6.4: Inverse trig functions

Goals:

1. Inverse trig functions (Understand the definitions of the inverse trig function and the conditions under which we can define them)
2. Limits and derivatives of inverse trig functions (Understand and be able to calculate limits and derivatives of inverse trig functions)

Where is today's material used?

1. Physics and engineering (solving for angles)

6.4 Inverse Trig Functions

1. Definitions (need domain restrictions on the corresponding trig functions)
2. Limits (including at infinity) and continuity (they are continuous on their domains)
3. Derivatives of inverse trig functions ($\frac{d}{dx}\arcsin x = \frac{1}{\sqrt{1-x^2}}, \frac{d}{dx}\arctan x = \frac{1}{1+x^2}$)
4. Examples. p. 447: 24, 27, 28, 33, 35, 41, 42, 43, 48, 50, 53, 54, 55, 56, 58, 61, 66, 67, 71, 74, 68

Next Time

1. Review