

# MATH 150

## Today

1. WeBWorK
2. 6.1: Trig functions
3. Homefun 16

### Goals:

1. Definitions of trig functions (Understand the definitions of the six trig functions)
2. Geometry of trig functions (Understand the graphs of the trig functions, the unit circle, and the role of similar triangles)

## Where is today's material used?

1. Physics (e.g., optics, mechanics)
2. Fourier series, based on trig functions, are used to model periodic behavior.

## 6.1 Trig Functions

1. Similar triangles
2. Definitions:  $\sin$ ,  $\cos$ ,  $\tan$ ,  $\csc$ ,  $\sec$ ,  $\cot$
3. The unit circle
4. Radians
5. Graphs of the trig functions
6. Examples. p. 413: 25-33, 37, 36, 38, 39, 41, 42, 43, 44, 45, 46, 50, 52, 56, 58, 61, 65, 71, 72, 91, 92

## Next Time

1. 6.2: Trig identities [23 min]