EXAM 1 IS THURSDAY IN QUIZ SECTION

Allowed:

1. A **Ti-30x IIS Calculator**
2. An 8.5 by 11 inch sheet of handwritten notes (front/back)
3. A pencil or black/blue pen

Details and rules:

1. 4 pages of questions, 50 minutes, use your time effectively.
2. **Show your work using methods from class.** The correct answer with no supporting work is worth zero points. If you guess or use some formula from physics, you don't get credit.
3. Clearly indicate work you want graded. Put a box around your final answers.
4. No make-up exams; if you are physically unable to be at the test, go to doctor and get documentation (and your grade will be prorated)

5. Leave your answer in exact form, BUT simplify standard trig, inverse trig, natural logarithm, and root values. Here are some examples of un-simplified answers I have seen on tests in the past (I took off one point):

$$\sqrt{4} = \qquad , 8^{2/3} = \qquad , \frac{3}{2} - \frac{2}{5} =$$

$$\cos(0) = \qquad , \cos(\pi) = \qquad , \cos\left(\frac{\pi}{6}\right) =$$

$$\sin\left(\frac{3\pi}{4}\right) = \qquad , \tan\left(\frac{\pi}{4}\right) = \qquad , \tan^{-1}(1) =$$

$$\ln(1) = \qquad , \ln(e) = \qquad , e^0 =$$

Quick Review

1. (12.1-12.4) Vector Facts/Operations
   - Scaling
   - Subtracting
   - Adding
   - Dot Products (angle between)
   - Cross Products (interpret)

2. (12.5) Lines and Planes
   - Line: Point and Direction
   - Plane: Point and Normal

3. (12.6) Seven Surface Names (traces)

4. (10.3) Polar Coordinates
   - Converting
   - Plotting
   - Slopes

5. (10.1-10.2) 2D Parametric
   - Plotting points
   - Eliminating parameter
   - dy/dx, d^2y/dx^2
   - Tangent Line
   - Arc Length

6. (13.1-13.3) 3D Parametric
   - Plotting points
   - Eliminating parameter
   - Tangent vector
   - Unit tangent
   - Tangent Line
   - Arc Length
   - Curvature