Information on Math 1060 Final

- ✓ No calculator.
- ✓ You will be given a sheet of formulas.
- ✓ Bring your student ID to the exam. It will be checked.

Trig final covers:
- Angles, radians, reference angle, co-terminal angle, standard position
- Angular and linear velocity
- Unit circle questions
- Basic identities and right triangle ratios.
- Functions, period, amplitude, shift, even, odd
- Inverse functions arcsin x, cos⁻¹x, etc.
- Solving right triangles
- Solving trigonometric equations
- Sum & difference formulas, double and half angle formulas
- Solving non-right triangles, law of sines, law of cosines, area of a triangle
- Verifying identities
- Given coordinates on the terminal side of an angle, find the trig ratios.
- Vectors, sketch them, component form, direction angle form, add and subtract them, the dot product.
- Complex numbers rectangular to trigonometric form, multiplying, dividing, taking powers and roots of.
- Polar coordinates, polar equations

How to study for the exam.

Do not wait until the last minute. Study regularly and diligently.
Complete the final WeBWork assignment.
Try the practice exam.
Look over all your tests and quizzes and correct errors.
Get help from each other, me, tutoring center, etc.

Formulas you will be given:

$$z^n = r^n(\cos n\theta + i\sin n\theta)$$

$\sin (u + v) = \sin u \cos v + \cos u \sin v$ $A = \dfrac{1}{2}ab\sin C$

$\cos(u+v) = \cos u \cos v - \sin u \sin v$ $c^2 = a^2 + b^2 - 2ab\cos C$

$\tan (u+v) = \dfrac{\tan u + \tan v}{1 - \tan u \tan v}$ $\cos \phi = \dfrac{\vec{u} \cdot \vec{v}}{\|\vec{u}\|\|\vec{v}\|}$

$\sin\dfrac{u}{2} = \pm\sqrt{\dfrac{1 - \cos u}{2}}$ $\cos\dfrac{u}{2} = \pm\sqrt{\dfrac{1 + \cos u}{2}}$ $\tan\dfrac{u}{2} = \dfrac{1 - \cos u}{\sin u}$