Emergency Anki Deck Cheat Sheet: MATH2250 Background Material

The primary method for memorizing course material is to use Anki. As a science and engineering calculus student, mastering the use of your computer is an essential skill for your University of Georgia education and your future job skills. Therefore, if you are using this sheet because you don't want to figure out how to get Anki installed on your computer, please don't. You'll learn a valuable skill by figuring out how to make the software work. **There is no guarantee that this is up-to-date with the Anki decks** and **you are still responsible for the material in the Anki decks**.

The volume of a cylinder of height h and radius r is	$\pi r^2 h$
$\cos^2 \theta$	$\frac{1+\cos 2\theta}{2}$
The **area** of a circle of radius r is	πr^2
The *volume* of a sphere of radius r is	$\frac{4}{3}\pi r^3$
The solutions of $ax^2 + bx + c = 0$ are given by $x =$	$\frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$ (quadratic formula)
The distance between (x_1, y_1) and (x_2, y_2) in the plane is	$\sqrt{(x_1 - x_2)^2 + (y_1 - y_2)^2}$
$x^{a+b} =$	$x^a x^b$
The **perimeter** of a circle of radius r is	$2\pi r$
$(x^a)^b =$	x^{ab}
$\ln(e^x)$	x
$e^{\ln x} =$	x
$\sin(a + b)$	$\sin a \cos b + \cos a \sin b$
$\sin 2\theta =$	$2 \sin \theta \cos \theta$
The **area** of a sphere of radius r is	$4\pi r^2$
$\cos(a + b) =$	$\cos a \cos b - \sin a \sin b$
How to complete the square: $x^2 + 2ax + b =$	$(x + a)^2 + (b - a^2)$
$1 + \tan^2 \theta =$	$\sec^2 \theta$
$\cos 2\theta =$	$\cos^2 \theta - \sin^2 \theta$
$\sin^2 \theta =$	$\frac{1-\cos 2\theta}{2}$