- 14 multiple choice questions worth 5 points each.
- 2 hand graded questions worth 15 points each.
- Exam covers sections 7.3, 7.4, 7.5, 7.8, 8.1, 8.2, 11.1, 11.2, and 11.3.

- No calculators!
- For the multiple choice questions, mark your answer on the answer card.
- Show all your work for the written problems. Your ability to make your solution clear will be part of the grade.

Useful Formulas

$\sum_{i=1}^{n} i = \frac{n(n+1)}{2}$	$\sum_{i=1}^{n} i^2 = \frac{n(n+1)(2n+1)}{6}$
$\sum_{i=1}^{n} i^3 = \left[\frac{n(n+1)}{2}\right]^2$	$\sin^2\theta + \cos^2\theta = 1$
$1 + \tan^2\theta = \sec^2\theta$	$1 + \cot^2\theta = \csc^2\theta$
$\sin(A \pm B) = \sin A\cos B \pm \sin B\cos A$	$\cos(A \pm B) = \cos A\cos B \mp \sin A\sin B$
$\tan(A \pm B) = \frac{\tan A \pm \tan B}{1 \mp \tan A\tan B}$	$\sin A\sin B = \frac{1}{2}\left[\cos(A-B) - \cos(A+B)\right]$
$\cos A\cos B = \frac{1}{2}\left[\cos(A-B) + \cos(A+B)\right]$	$\sin A\cos B = \frac{1}{2}\left[\sin(A+B) + \sin(A-B)\right]$
$\sin^2 x = \frac{1}{2}(1 - \cos 2x)$	$\cos^2 x = \frac{1}{2}(1 + \cos 2x)$
$\sin(2\theta) = 2\sin\theta\cos\theta$	$\cos(2\theta) = \cos^2\theta - \sin^2\theta$
$\int \csc x\, dx = -\ln\lvert\csc x + \cot x\rvert + C$	$\int \sec x\, dx = \ln\lvert\sec x + \tan x\rvert + C$
$\cosh t = \frac{1}{2}(e^t + e^{-t})$	$\sinh t = \frac{1}{2}(e^t - e^{-t})$
$\cosh^{-1} x = \ln\left(x + \sqrt{x^2-1}\right)$	$\sinh^{-1} x = \ln\left(x + \sqrt{x^2+1}\right)$
$\cosh^2 t = 1 + \sinh^2 t$	