## Outline and review problems for Midterm I

## MATH 175, Fall 2014

Briggs \& Cochran

1. Find integrals using substitution.
5.5 \#19, 37
$7.2 \# 65,67$
p. 312 \#19
p. $439 \# 51$
2. Find inverse trig. values using circles/triangles.
$7.5 \# 11,13,15,25,27,29,31$
3. Find expressions for inverse trig. values using circles/triangles.
$7.5 \# 17,19,33,35,39$
4. Find derivaties of expressions containing inverse trig functions.
7.5 \# 41, 43, 45, 47, 51
5. Integration of derivatives of inverse trig functions $7.5 \# 65,69,71,83,85$
6. Use l'Hôpital's rule to find limits of indeterminate forms.
$4.7 \# 9,15,25,27,31,33$
p. $249 \# 29$
7. Know how to use $e^{\ln f(x)}$ together with l'Hôpital's to find limits.
$7.6 \# 7,9,11,13,15,33$
8. Integration by parts
$8.1 \# 7,11,13,15,19,23,25,51,55$
9. Find integrals containing powers of $\sin / \mathrm{cos}$ or $\mathrm{tan} / \mathrm{sec}$
$8.2 \# 9,11,13,15,17,19,21,23,25,29,41$
