Math 242 - Homework 12 Due Thursday, November 20

Exercises from the Book

- Chapter 3.5# 1, 4, 7
- See Page 191 for solutions to odd problems.

Additional Exercises

1. Find the Jacobian determinants of the transformations below.
   (a) $x = u + 4v$, $y = 3u - 2v$
   (b) $x = u^2 - v^2$, $y = u^2 + v^2$
   (c) $x = uv$, $y = vw$, $z = uw$
2. Use a Jacobian determinant to explain why $dA = rdrd\theta$ in polar-coordinate integrals.