

## Review 3 Math 261

Any term in **bold face** know the definition well enough to state it on the test. The definition you give should be very similar to the one in the book or one with similar detail.

Section 15.1-15.2 Be able to compute double integrals over rectangles

Sample problems : example 3, pg 994 exercises # 7, 9

Section 15.3 Be able to compute double integrals over general regions finding limits of integration is key

Sample problems : example 1, exercises 11,15

Section 15.4 Be able to change from rectangular to polar coordinates to compute integrals. Finding limits of integration is key finding limits of integration is key. **know the formula for converting from rectangular to polar coordinates.**

Sample problems : example 1,4 exercises 11

Section 15.5 Be able to find the center of mass for a plate. **know the formula for finding center of mass of a plate**

Sample problems : example 2, exercise 7 ,

Section 15.6 Be able to find surface area **know the formula for finding surface area**

Sample problems : example 2, exercise 5

Section 15.7 Be able to compute triple integrals, Be able to find the center of mass for a volume. **know the formula for finding center of mass of a volume**

Sample problems : example 5, exercise 7

Section 15.9 Jacobian, B able to compute Jacobians and use them to do a change of variables for a function of two or three variables

Sample problems : examples 3,4