# Test 2 Preparation

1. The test covers chapter 6.
2. Use the homework, class work, and class examples as a study guide. In other words, any problem from the homework or class work is fair-game on the exam.
3. Memorize the following:
   a) Formulas used in finding the volume of a solid of revolution.
   b) The work formula: $W = FD$
   c) The **average value** of a function $\dfrac{1}{b-a}\displaystyle\int_a^b f(x)dx$
   d) The **Mean Value Theorem for Integrals**: $\displaystyle\int_a^b f(x)dx = f(c)(b-a)$, where f is continuous and $c$ is number in $[a,b]$.

4. A well-prepared student should be able to...
   a) find the area of a region in the $xy$-plane [6.1]
   b) find the volume of a solid of revolution using the disc, washer, and shell methods. [6.2, 6.3]
   c) Find the area of a solid region using cross-sectional areas. [6.2]
   d) solve application problems [6.4]
   e) find the average value of a function. [6.5]
   f) apply MVT for integrals. [6.5]