

ERRATA FOR STUDY GUIDE VII

TONI A. WATSON

1. ERRATA

- Problem (5a) should read $4e^{-3} \cdot e^5$
- Problem (6) Should begin with the statement "Suppose $\log_7 a = 2$ and $\log_7 b = 3$, find the values of the following:"
- Problem (7e) should read $\log_{100} \left(\frac{1}{1000}\right)$.
- The functions for problem 10 are incorrect (observe they are the functions from study guide VI). In place of (10a)- (10e), should be the following:
 - (a) $\log_3(x + 1) - 2$
 - (b) $\frac{1}{2} \ln(x) + 4$
 - (c) $\log(2x - 5)$
 - (d) $-3 \log_2(x - 1)$

2. HINT AND EXTRA PROBLEMS

2.1. **Hint.** For Chapter 8 Problem 9, the answer is $x^{3/2}$

2.2. Extra Problems for Chapter 9.

- (1) The volume of a cone varies directly with its height and the square of the radius of its base. If the volume of the cone is 80π cubic metres when the height(h) is 15 metres and the radius(r) is 4 metres. Find the formula for the volume of a cone.
- (2) The volume of an octahedron varies directly with the cube of an edge's length. If the volume of an octahedron is $9\sqrt{2}$ cubic yards when the length of an edge(s) is 3 yards, find the formula for the volume of an octahedron.

NATIONAL CATHEDRAL SCHOOL, WASHINGTON, DC 20016
E-mail address: twatson@ncs.cathedral.org