

GEORGIA INSTITUTE OF TECHNOLOGY
School of Electrical and Computer Engineering

ECE 4260

Problem Set #2

Date assigned: January 18, 2017

Date due: January 25, 2017

Reading: Chapters 2, 3, and 4 in S & W. Again, this should mainly be review.

Problem 2.1

Let X have pdf

$$f_X(x) = \alpha e^{-\alpha x} u(x)$$

Find the pdf for (a) $Y = e^X$ (b) $Y = 2X + 3$.

Problem 2.2

Work problem 3.7 in Stark & Woods.

Problem 2.3

Work problem 3.10 in Stark & Woods.

Problem 2.4

Work problem 3.17 in Stark & Woods with $X : U(-2, 0)$ and $Y : (0, 4)$

Problem 2.5

Work problem 3.22 in Stark & Woods.