

ACTEX EXAM P STUDY MANUAL – 2009

Errata List, by S. Broverman Updated July 23, 2009

Page 87 #16, answer should be E

Page 123 #5, The question should be

In a small metropolitan area, annual losses due to storm, fire and theft are independently distributed random variables. The pdf's are:

	Storm	Fire	Theft
$f(x)$	e^{-x}	$\frac{2e^{-2x/3}}{3}$	$\frac{5e^{-5x/12}}{12}$

Determine the probability that the maximum of these losses exceeds 3.

Page 127 #2 (solution), lines 3 and 4, n should be k

Page 128, #9 solution. (in some editions)

Add the following to the solution

From the density function for Y we have

$$P[100,000Y > 40,000] = P[Y > .4] = \int_{.4}^1 f(y) dy = \int_{.4}^1 5(1-y)^4 dy = (.6)^5, \text{ and}$$

$$P[100,000Y > 10,000] = P[Y > .1] = \int_{.1}^1 f(y) dy = \int_{.1}^1 5(1-y)^4 dy = (.9)^5.$$

The conditional probability in question is $\frac{(.6)^5}{(.9)^5} = .132$. Answer: B

Page 134 under Symmetric Distributions, line 4, “we will a couple”
Should be “we will review a couple”

Page 178 #8, in line 2, “is exponentially distributed” should be replaced with
“has pdf $f(x) = ce^{-cx}$ ”.

Page 194 line 3, $-\infty < x < \infty$ should be replaced by $-\infty < z < \infty$

Page 214 #6 should be in Problem Set 8

Page 326, #20, add the following at the end of the problem

Given a random loss X , the probability that the insurance payment is less than or equal to 0.5 is 0.64. Calculate C.

- A) .1 B) .3 C) .4 D) .6 E) .8

Page 337 #18 (solution), line 4, in the denominator of the second expression to the right of the = sign
 $(-2.5)x^{1.5}$ should be $(-2.5)x^{2.5}$

Page 485 #22 (solution), answer should be D