

1, p. 168: For the Binomial, $P(z) = \{1 + q(z-1)\}^m$

$$1, p. 358: \int_0^x t e^{-t} dt = -e^{-t} - t e^{-t} \Big|_{t=0}^{t=x}$$

2, p. 526, solution 32.42: The non-zero payments are uniform from **0 to 15**. Final answer is OK.

2, p. 526, solution 32.43: Need to change letter choices.

The non-zero payments are uniform from 0 to 15,

with mean: 7.5, variance: $(15 - 0)^2 / 12 = 18.75$,

and second moment: $18.75 + 7.5^2 = 75$.

The probability of a non-zero payment is: $15/18 = 5/6$.

Thus Y^L is a two-point mixture of a uniform distribution from 0 to 15 and a distribution that is always zero, with weights $5/6$ and $1/6$.

The mean of the mixture is: $(5/6)(7.5) + (1/6)(0) = 6.25$.

The second moment of the mixture is: $(5/6)(75) + (1/6)(0^2) = 62.5$.

The variance of this mixture is: $62.5 - 6.25^2 = \mathbf{23.44}$.

Alternately, Y^L can be thought of as a compound distribution, with Bernoulli frequency with mean $5/6$ and Uniform severity from 0 to 15.

The variance of this compound distribution is:

$(\text{Mean Freq.})(\text{Var. Sev.}) + (\text{Mean Sev.})^2(\text{Var. Freq.}) =$

$(5/6)(18.75) + (7.5)^2 \{(5/6)(1/6)\} = \mathbf{23.44}$.

On May 18, 2015, the SOA announced:

The June syllabus has been changed in that the **Anderson-Darling test has been dropped**.

Thus, Section 19 of my Fitting Loss Distributions, Anderson-Darling, is no longer of the syllabus.

6, pages 240, 244, & 1026: for the LogNormal $\sigma^2 = \frac{\sum (\ln x_i - \mu)^2}{N}$.

6, p. 481: $\text{BIC} = (-2) (\text{maximum loglikelihood}) + (\text{number of parameters}) \ln(\text{number of data points})$.

6, page 495, equation near the top of the page: $\alpha = 2 \sum_{r=1}^{\infty} (-1)^{r-1} \exp(-2r^2 d^2)$.

9, Section 18 on the Normal Equations **is no longer on the syllabus.**

10, p. 67: $\int_0^x t e^{-t} dt = -e^{-t} - t e^{-t} \Big|_{t=0}^{t=x}$

10, p.92, Q. 4.23, reword the second bullet:

- The posterior mean of this Poisson-gamma conjugate pair can be represented as a weighted average of **the observed mean** and the mean of the prior distribution, where the two weights sum to one.

10, p. 320 , Q. 10.40: The distribution of the amount of juice per bottle from a given machine **is Normal** with standard deviation 30.

12, Sections 6 and 7 involving the use of an a priori mean **are no longer on the syllabus.**

13, p. 312. Q. 18.9: Use the first random number to simulate λ and then use the second random number and the method of inversion.