

1, 88: $\text{Prob}[N(t+h) - N(t) = 1] = \lambda h + o(h)$.

1, p.654, Q. 21.46: • $P_{i, i+1} = 0.94$ for $i = 1, 2, \dots, 24$

2, p. 114: A coinsurance factor is the proportion of any loss that is paid by the insurer after any other modifications (such as deductibles or **maximum covered losses**) have been applied.

3, page 70, solution 2.94:

Second moment = $(2,000^2 + 17,000^2 + 271,000^2 + 10,000^2)/4 = 18,458,500,000$.

Final answer is okay.

3, p.252, sol. 5.160: $\alpha = \frac{N}{\sum \ln[x_i] - N \ln[\theta]}$.

3, p.531, sol. 11.13: 80% confidence interval is: $11 \pm (1.282)(2) / \sqrt{8} = (10.093, 11.907)$.

3, p.615, Q. 15.35: $\sigma = 1.7$.

3, p.619: Use the following grouped data for the next three questions:

<u>Bottom of</u> <u>Interval</u>	<u>Top of</u> <u>Interval</u>	<u># claims in the</u> <u>Interval</u>
0	2.5	2625
2.5	5	975
5	10	775
10	25	500
25	Infinity	125
Total		5000

3, p.1145, Q. 29.5, choice B is equivalent to choice D. Change choice B to:

B. $\bar{X} \geq 5 + k$, for some $k > 0$

3, p.1299, solution 31.76, the correct solutions for parts (a) and (b) are switched:

(a) The series system functions only of all of the components function.

Thus the survival function of the system is $S(x)^N$.

(b) The parallel system fails only if all of the components fail.

Thus the distribution function of the system is $F(x)^N$.

Its survival function is: $1 - F(x)^N = 1 - \{1 - S(x)\}^N$.

3, p.1433, solution 33.45: $f(x) = e^{-0.1(x+\delta)}$

3, p.1447, solution 33.86: $MSE[\gamma] = Var[\gamma] + Bias[\gamma]^2 = 1.6875 + 0.15^2 = 1.71$.

$|MSE[\mu] - MSE[\gamma]| = |0.26 - 1.71| = 1.45$.

3, p.1570, solution 38.21: The sample variance is:

$$\frac{(1.16 - 1.39)^2 + (-6.78 - 1.39)^2 + (4.04 - 1.39)^2 + (7.68 - 1.39)^2 + (0.85 - 1.39)^2}{5 - 1} = 28.42.$$

Final answer is okay.

4, p.106: **Model** SS is the amount of variation explained by the model.

Thus in this example, (**Model** SS) / (Total SS) =

4, p.301:

Then if H_0 is true, where D_0 and D_1 are the deviances of the two models:

$$F = \frac{(D_0 - D_1) / (k_0 - k_1)}{D_1 / (N - k_1 - 1)} = \frac{(RSS_0 - RSS_1) / (k_0 - k_1)}{RSS_1 / (N - k_1 - 1)},$$

has an F-Distribution with $k_0 - k_1$ and $N - k_1 - 1$ degrees of freedom.

4, p.663: Added variable plots and partial residual plots are no longer on the syllabus.

5, p.64, Q. 4.4: The m in the denominator should be μ . $\exp[-5(x-\mu)^2 / (x\mu^2)]$

5, p.283, Q. 12.30: $\ln(Y_i) = \beta_0 + \beta_1 x_{1i} + \beta_2 x_{2i} + \beta_3 x_{3i} + \beta_4 x_{4i}$

5, p.412, Q. 18.3 (also solution):

An otherwise similar GLM excluding 2 parameters has a deviance of 2132.

6, pages 11 and 241: Expected Test MSE = $E[(y_0 - \hat{f}(x_0))^2]$

Usually more flexible methods have a larger variance but **a lower bias than less flexible methods**.

6, page 32: From **least to most** computationally intense:
validation set approach, k-fold validation ($k < n$), LOOCV.

6, Section 4: the header should read **§4 Subset Selection**

6, page 81, in both text and footnote: $\hat{Y} = 35.25$.

6, p.117, Q. 5.5, in Statement B: $\hat{\beta}_p^R$ rather than $\hat{\beta}_3^R$.

8, pages 91 and 131, the formulas should have $i = 1$ to n :

For the series system $S(t) = \prod_{i=1}^n S_i(t)$.

For a parallel system $r(p) = 1 - \prod_{i=1}^n (1 - p_i)$. Therefore, $S(t) = 1 - \prod_{i=1}^n F_i(t)$.

9, p.200 and p.316, parentheses are out of place:

$$\text{Var}[x_t] = \sigma_W^2 \{1 + (\alpha + \beta)^2 / (1 - \alpha^2)\}.$$

$$\gamma_k = \sigma_W^2 \{(\alpha + \beta)\alpha^{k-1} + (\alpha + \beta)^2 \alpha^k / (1 - \alpha^2)\}, \text{ for } k > 1.$$

12, p. 244, question 12.4: The first column should be headed **number of spline knots**.

$$12, \text{ p. 294: } \ln\left[\frac{\text{Prob}[Y = 1 | X]}{1 - \text{Prob}[Y = 1 | X]}\right] = \beta_0 + f_1(X_1) + f_2(X_2) + \dots + f_p(X_p).$$

$$\text{This is equivalent to: } \text{Prob}[Y = 1 | X] = \frac{\exp[\beta_0 + f_1(X_1) + f_2(X_2) + \dots + f_p(X_p)]}{1 + \exp[\beta_0 + f_1(X_1) + f_2(X_2) + \dots + f_p(X_p)]}.$$

$$12, \text{ p. 307: } \text{Prob}[Y = 1 | X] = \frac{\exp[\beta_0 + f_1(X_1) + f_2(X_2) + \dots + f_p(X_p)]}{1 + \exp[\beta_0 + f_1(X_1) + f_2(X_2) + \dots + f_p(X_p)]}.$$