2, page 514, the solution shown for Q.10.53 is not for that question.

10.53. B. The mean of the first LogNormal is: $\exp[2 + 1^2/2] = 12.1825$.
The second moment of the first LogNormal is: $\exp[(2)(2) + (2)(1^2)] = 403.429$.
The mean of the second LogNormal is: $\exp[3 + 1^2/2] = 33.1155$.
The second moment of the first LogNormal is: $\exp[(3)(2) + (2)(1^2)] = 2980.96$.
The mean of the Beta Distribution is: $2/(2+2) = 0.5$.
The second moment of the Beta Distribution is: $(2)(2+1)/\{(2+2)(2+2+1)\} = 0.3$.
Variance of the Beta Distribution is: $0.3 - 0.5^2 = 0.05$.
The hypothetical mean given p is: $p\ 12.1825 + (1-p)\ 33.1155 = 33.1155 - 20.9330\ p$.
Thus variance of the hypothetical means is:
$\text{Var}[33.1155 - 20.9330p] = (20.933^2)\text{Var}[p] = (20.9330^2)(0.05) = 21.9095$.
The second moment given p is: $p\ 403.429 + (1-p)(2980.96) = 2980.958 - 2577.529p$.
The process variance given p is:
$2980.958 - 2577.529p - (33.1155 - 20.9330p)^2 = 1884.322 - 1191.115p - 438.190p^2$.
The expected value of the process variance is: $1884.322 - 1191.115E[p] - 438.190E[p^2] =$
$1884.322 - (1191.115)(0.5) - (438.190)(0.3) = 1157.31$.
$K = \text{EPV}/\text{VHM} = 1157.31/21.9095 = 52.82$. $Z = 30/(30+K) =$ **36.2%**.
Comment: The moment of the mixture is the mixture of the moments.

5, page 227, footnote: Should refer to section 1**2**.2.4.

5, page 239, footnote: Should refer to Figure **12**.3.

5, page 240, footnotes: Should refer to Figure **12**.2.

5, page 258, footnote: Should refer to section 1**2**.2.5.

5, page 421, including footnote (see Equations 10.2 and 10.3 in the textbook):

$A_k = g(w_{ko} + \sum_{j=1}^{p} w_{kj} X_j)$, where g is some nonlinear activation function.

The output is a linear function of the activations:

$$f(X) = \beta_0 + \sum_{k=1}^{K} \boldsymbol{\beta_k A_k} = \beta_0 + \sum_{k=1}^{K} b_k\, g(w_{k0} + \sum_{j=1}^{p} w_{kj} X_j).$$

5, page 428, solutions 13.4 and 13.5: $A_k = g(w_{ko} + \sum_{j=1}^{p} w_{kj} X_j)$.

5, Questions 13.6-13.8: $\text{Prob}[Y = m \mid X) = \frac{\exp[Z_m]}{\sum_{l=1}^{3} \exp[Z_l]}$, for m = **1, 2, 3**.

5, page 518 (Important Ideas Section):

$A_k = g(w_{ko} + \sum_{j=1}^{p} w_{kj} X_j)$, where g is some nonlinear activation function.

The output is a linear function of the activations:

$$f(X) = \beta_0 + \sum_{k=1}^{K} \beta_k A_k = \beta_0 + \sum_{k=1}^{K} b_k \, g(w_{k0} + \sum_{j=1}^{p} w_{kj} X_j).$$

6, eliminate page 67

6, page 69: For the Pareto Distribution, the Gini Index is: $\alpha / (2\alpha - 1)$, $\alpha > 1$.

7, page 26: $\mathrm{Cov}[\sum_{i=1}^{n} X_i , \sum_{j=1}^{m} Y_j] = \sum_{i=1}^{n} \sum_{j=1}^{m} \mathrm{Cov}[X_i, Y_j]$.

7, solution 16.19 is mislabeled as 16.16.
Solutions 16.20 to 16.24 are mislabeled as 16.19 to 16.23.

8, page 3: 11/19 Q.7 is in Section 2. 11/19 questions 8, 9,10, 15 are in Section 4.

8, pages 63 and 441:
The estimates of the fixed effects from fitting via Maximum Likelihood or Restricted Maximum Likelihood are called Empirical Best Linear Unbiased **Estimators (EBLUEs)**.

8. Question 6.7, change the given loglikelihoods in order to match the solution:

Model	Number of Fitted Parameters	LogLikelihood
A	4	**-59.17**
B	5	**-57.84**
C	6	**-56.02**
D	7	**-55.23**
E	8	**-54.35**

8, Solution 6.8: The letter solution should be C.