Errata and Updates for the 2nd Edition of the ACTEX Manual for Exam P

(Last updated 08/26/2025) sorted by page

Page 157 **Problem 19. Third line.**

After "The proportion of the coins in the collection that are loaded towards a head is p", add "and the rest of the coins are loaded towards a tail".

Page 185 **Problem 14. First line.**

Change "denote2" to "denotes".

Page 347 **Problem 27. Second line.**

Change "...an exponential distribution with mean 2." to "...an exponential distribution with mean 1."

Page 381 **Problem 17.**

Change the choices to:

(A) 0.5793   (B) 0.5987   (C) 0.6179   (D) 0.6554   (E) 0.6915

Page 391 **Solution to Problem 17.**

Change the solution to:

Suppose that the lognormal parameters are μ and σ.

Then $P[X \leq 1] = P[\ln X \leq \ln 1] = P\left[\dfrac{\ln X - \mu}{\sigma} \leq \dfrac{0 - \mu}{\sigma}\right] = \Phi\left(\dfrac{-\mu}{\sigma}\right) = 0.4013$,

and $P[X \leq 2] = P[\ln X \leq \ln 2] = P\left[\dfrac{\ln X - \mu}{\sigma} \leq \dfrac{\ln 2 - \mu}{\sigma}\right] = \Phi\left(\dfrac{\ln 2 - \mu}{\sigma}\right) = 0.5000$.

From the normal table we get $\dfrac{-\mu}{\sigma} = -0.25$ and $\dfrac{\ln 2 - \mu}{\sigma} = 0.0$.

Solving for μ and σ results in $\mu = \ln 2$ and $\sigma = 4 \ln 2$.

Then $P[X \leq 4] = P[\ln X \leq \ln 4] = P\left[\dfrac{\ln X - \mu}{\sigma} \leq \dfrac{\ln 4 - \mu}{\sigma}\right]$

$= \Phi\left(\dfrac{\ln 4 - \ln 2}{4 \ln 2}\right) = \Phi(0.25) = 0.5987$.

Answer B

1

Page 398 **Problem 6.**

Change the choices to:

(A) $\dfrac{1}{35}$　　　(B) $\dfrac{2}{35}$　　　(C) $\dfrac{4}{35}$　　　(D) $\dfrac{8}{35}$　　　(E) $\dfrac{16}{35}$

Page 405 **Solution to Problem 6.**

Change last line of the solution to:

Then $E[X^3] = \dfrac{\Gamma(2+3) \times \Gamma(2+3)}{\Gamma(2) \times \Gamma(2+3+3)} = \dfrac{4! \times 4!}{1! \times 7!} = \dfrac{4}{35}$.

Page 419 **Problem 21.**

Change the choices to:

(A) $\dfrac{2}{3}$　　　(B) 1　　　(C) 6　　　(D) 2^3　　　(E) 3^2

Page 430 **Solution to Problem 21.**

Change the last two lines to:

Similarly, $E[Y] = \sum\limits_{y=1}^{\infty} \frac{4}{3} \times \frac{y^2}{3^y} = \dfrac{4}{3} \times \frac{3^2+3}{(3-1)^3} = 2$.

$E[XY] = E[X] \times E[Y] = 3 \times 2 = 6$.

Page 436 **Problem 6.**

Change the choices to:

(A) $\dfrac{27}{16}$　　　(B) $\dfrac{81}{16}$　　　(C) $\dfrac{27}{8}$　　　(D) $\dfrac{81}{8}$　　　(E) $\dfrac{27}{4}$

Page 446 **Solution to Problem 6.**

Change 648 to 1944 and the last line should read:

$\dfrac{E[X^4]}{E[Y^3]} = \dfrac{1944}{384} = \dfrac{81}{16}$.

Page 528 **Solution to Problem 23. Third Line.**

Remove the extra 125. It should read:

$$= \dfrac{U^2}{2000} + U \times \dfrac{1000 - U - 150}{1000} = \dfrac{1700U - U^2}{2000}.$$