

I have made the following corrections to SOA 300 solutions April 19, 2012:

96. in the diagram, replace each 100 with 1000.

152. in the first equation, replace p_{x+2}^{24} with p_{x+2}^{14} .

155. oops, I had the wrong solution to this problem. The solution should be:

Add up the force of mortality between ages 0 and 0.4, take the negative and take the exponential

$$\begin{aligned} {}_{0.4}p_0 &= \exp\left(-\int_0^{0.4} F + e^{2t} dt\right) \\ 0.5 &= \exp\left(-\left[Ft + \frac{e^{2t}}{2}\right]_0^{0.4}\right) \\ 0.5 &= \exp\left(-0.4F - \frac{e^{0.8}}{2} + \frac{1}{2}\right) \\ -\ln 0.5 &= 0.4F + \frac{e^{0.8}}{2} - \frac{1}{2} \\ F &= \boxed{0.20} \end{aligned}$$

180. this is actually the solution to 181 (180 was removed from syllabus).

185. in the picture replace $DB = 1000 + {}_1V$ with $DB = 1000(1) + {}_1V$ and $DB = 1000(2) + {}_2V$. In the recursion for the second year replace $1000 + 1000$ with $1000(2) + 2000$.

186. in the σ_S line replace 12.85445 with 12.8445.

199. in the first line replace $0.15(100)$ with $0.15(1000)$.

203. under the section labeled “where”, \bar{a}_{30} computes to 7.3 (not 6.25).

207. in the next to last line I’m missing a squared symbol. It should be

$$\int_0^{50} \frac{1 - (0.01(30 + s))^2}{0.91} ds$$

284. in the first line replace $\frac{m^2-1}{12m}$ with $\frac{m^2-1}{12m^2}$. In the second line replace $\frac{2^2-1}{12(2)}$ with $\frac{2^2-1}{12(2^2)}$. In the third line replace $\frac{4^2-1}{12(4)}$ with $\frac{4^2-1}{12(4^2)}$. In the last line replace $\frac{12^2-1}{12(12)}$ with $\frac{12^2-1}{12(12^2)}$.