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Section: 8

① $P(X_0 = 1, X_1 = 0, X_2 = 1)$

   $= 0.200$

② $P(X_0 = 0, X_1 = 1)$

   $= 0.120 + 0.120 = 0.240$

③ $P(X_2 = 0) = 0.160 + \cancel{0.160} \; 0.100 + 0.120 + 0.040 = 0.42$

④ $P(X_1 = 0 \mid X_0 = 1) = \dfrac{0.100 + 0.200}{0.100 + 0.040 + 0.200 + 0.080} = \dfrac{5}{7}$

⑤ $P(X_0 = 1, X_1 = 0 \mid X_2 = 1) = \dfrac{0.200}{0.180 + 0.200 + 0.120 + 0.080}$

   $= \dfrac{10}{29}$

⑥ $P(X_0 = 1 \mid X_1 = 0, X_2 = 1) = \dfrac{0.200}{0.180 + 0.200}$

   $= \dfrac{10}{19}$