Danmarks Tekniske Universitet

Technical University of Denmark



Exercise 3.1.1

$$P(X_0 = 0, X_1 = 1, X_2 = 2)$$

$$= P(X_2 = 2 \mid X_1 = 1, X_0 = 0) P(X_1 = 1, X_0 = 0)$$

=
$$P(X_2 = 2 \mid X_1 = 1, X_0 = 0) P(X_1 = 1 \mid X_0 = 0) P(X_0 = 0)$$

=
$$P(X_2 = 2 | X_1 = 1) P(X_1 = 1 | X_0 = 0) P(X_0 = 0)$$

$$= 0.0.2.0.3 = 0.$$