

Assignment 1

AI1110: Probability and Random Variables
Indian Institute of Technology Hyderabad

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Question 12.13.1.2 : Compute $\Pr(A|B)$, if $\Pr(B) = 0.5$ and $\Pr(AB) = 0.32$.
Solution:

$$\Pr(B) = 0.5 \quad (1)$$

$$\Pr(AB) = 0.32 \quad (2)$$

$$\Pr(A|B) = \frac{\Pr(AB)}{\Pr(B)} \quad (3)$$

$$\Pr(A|B) = \frac{0.32}{0.5} \quad (4)$$

$$\Pr(A|B) = 0.64 \quad (5)$$

$$\therefore \Pr(A|B) = 0.64 \quad (6)$$