## Assignment Probability

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Probability

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13.2.1  $^{1}\text{If }\Pr\left(A\right)=\frac{3}{5}\text{ and }\Pr\left(B\right)=\frac{1}{5}\text{ find }\Pr\left(A\cap B\right)\text{ if A and B are independent events? solution:}$ 

$$\Pr(A) = \frac{3}{5}, \Pr(B) = \frac{1}{5}$$
 (13.2.1.1)

$$\implies \Pr(AB) = \Pr(A) \times \Pr(B) \tag{13.2.1.2}$$

$$\Pr(A) = \frac{3}{5}, \Pr(B) = \frac{1}{5}$$
 (13.2.1.1)  
 $\implies \Pr(AB) = \Pr(A) \times \Pr(B)$  (13.2.1.2)  
 $\implies \Pr(AB) = \frac{3}{5} \times \frac{1}{5}$  (13.2.1.3)  
 $\implies \Pr(AB) = \frac{3}{25}$  (13.2.1.4)

$$\implies \Pr\left(AB\right) = \frac{3}{25} \tag{13.2.1.4}$$

<sup>&</sup>lt;sup>1</sup>Read question numbers as (CHAPTER NUMBER).(EXERCISE NUMBER).(QUESTION NUMBER)