

# Assignment 1

AI1110: Probability and Random Variables  
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**11.16.3.10:** A letter is chosen at random from the word 'ASSASSINATION'. Find the probability that letter is (1) a vowel (2) a consonant.

**Solution:** Given word is 'ASSASSINATION'

vowels in the given word are [A,A,I,A,I,O]

consonants in the given word are [S,S,S,S,N,T,N]

(a) let  $X$  denote the letter is vowel then probability of letter is vowel

$$\Pr(X) = \frac{6}{13} \quad (1)$$

(b) let  $Y$  denote the letter is consonant then probability of letter is consonant

$$\Pr(Y) = \frac{7}{13} \quad (2)$$