

Assignment 1

Adarsh Sai - AI20BTECH11001

Download all python codes from

commig soon

and latex-tikz codes from

<https://github.com/Adarsh541/AI1103/blob/415ba36629583ca759b5e67e8b28df607c1f6409/Assignment1/Assignment1.tex>

1 PROBLEM

Which of the following cannot be the probability of an event?

- i) $\frac{2}{3}$
- ii) -1.5
- iii) 15

2 SOLUTION

Let A be any event of any experiment then

$$0 \leq P(A) \leq 1 \quad (2.0.1)$$

(i) $0 \leq \frac{2}{3} \leq 1$

example:

A bag contains one green ball,two blue balls.Probability of picking a blue ball from the bag is $\frac{2}{3}$

So probability of an event can be $\frac{2}{3}$

(ii) $-1.5 < 0$

it does not satisfy the condition (2.0.1)

So probability of an event cannot be -1.5

(iii) $1 < 15$

it does not satisfy the condition (2.0.1)

So probability of an event cannot be 15

Therefore options (ii) and (iii) are the required answers.