Assignment 1

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Download all python codes from

https://github.com/Adarsh541/AI1103−prob−and−
ranvar/blob/main/Assignment1/codes/
assignment1.py

and latex-tikz codes from

https://github.com/Adarsh541/AI1103−prob−and−
ranvar/blob/main/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

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

(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.