

# Assignment 1

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## 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.