

# Assignment6

CS20Btech11035 -NYALAPOGULA MANASWINI

Download python code from

<https://github.com/N-Manaswini23/assignment6/blob/main/python%20codes/assignment6.py>

Download latex code from

<https://github.com/N-Manaswini23/assignment6/blob/main/assignment6.tex>

From graph (0)

$$\Pr(x + y > 20) = \frac{\text{Area of shaded region}}{\text{Area of rectangle}} \quad (0.0.1)$$

$$= \frac{\frac{1}{2} \times 10 \times 10}{10 \times 20} \quad (0.0.2)$$

$$= \frac{1}{4} \quad (0.0.3)$$

$$\therefore \Pr(x + y > 20) = \frac{1}{4} = 0.25 \quad (0.0.4)$$

## GATE 2019 ME SET-2 QUESTION 28

The variable  $x$  takes a value between 0 and 10 with uniform probability distribution. The variable  $y$  takes a value between 0 and 20 with uniform probability distribution. The probability that sum of variables  $(x + y)$  being greater than 20 is

### SOLUTION

Given variable  $x$  takes a value between 0 and 10  
variable  $y$  takes a value between 0 and 20

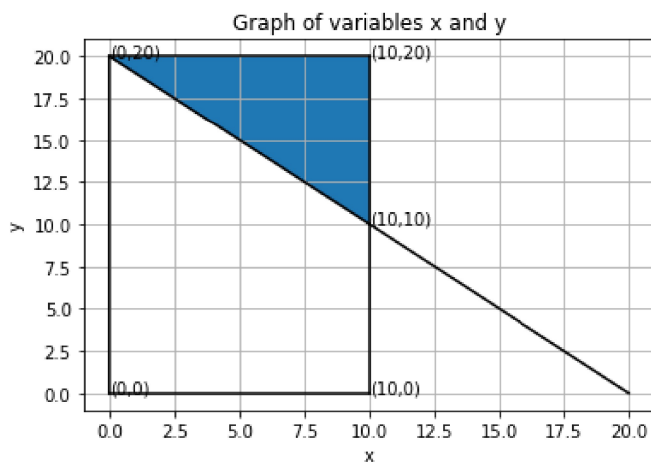


Fig. 0: Graph