

Q Using Math.random print the following.

(1) Any random value between 0 & 1. ✓

Soln $\Rightarrow$ Soln (Math.random());

(2) Any random ^{integer} value between 0 & 10.

(3) Any 3 digit random no.

~~(4)~~ Any integer between 10 & 20.

~~(5)~~ Any real no. between 50 & 100.

(2)

$0 \rightarrow 10$
 $\downarrow \quad \downarrow$
min max

(int)(Math.random()*11)

$\downarrow$ max
0.99999...

$0.999... \times 10$
9.999...

$0.999... \times 11$
10.989...

min = 0
max = 10
 $0 \Delta 10$

(3) 3 digit $\rightarrow$ 100 $\rightarrow$ 999
min max

$\rightarrow$ min = 100 $\rightarrow$ max = 999

(int) Math.random() * 9000 + 100 ;

$\downarrow$
0.999999
 $\times$ 9000
8999 91000

(4) $(\text{int}) (\text{Math.random}() * 11) + 10$

$$\begin{array}{r} 10.9 \\ 0.999 \\ \times 11 \\ \hline 10.989 \end{array}$$

max $\rightarrow 10 + 10 = 20$

min $\rightarrow 0$

(5) (int) (Math.random() * 50) + 50;

X

$(\text{Math.random()} * 51) + \underline{50}; \rightarrow$

X

Max $\rightarrow$

0.999	50.999...
x 51	50
999	
4995	<u>100.999</u>
<u>50.999</u>	

(Math.random() * 50) + 50; $\rightarrow$

44	49.950
0.999	50
x 50	
0000	
49950	<u>99.950</u>
<u>49.950</u>	

✓

* Math rint(a): It returns the nearest integer for a given argument.

RT → double

* If decimal part is exactly 0.5, then it returns the nearest even no.

Eg:- $\text{Math.rint}(7.43); \rightarrow 7.0$

$\text{Math.rint}(7.68); \rightarrow 8.0$

$\text{Math.rint}(7.5); \rightarrow 8.0$

$\text{Math.rint}(8.5); \rightarrow 8.0$

$\text{Math.rint}(-11.39); \rightarrow -11.0$

$\text{Math.rint}(-11.76); \rightarrow -12.0$



$\text{Math.rint}(-11.5); \rightarrow -12.0$

$\text{Math.rint}(0.5); \rightarrow 0.0$

$\text{Math.rint}(-0.5); \rightarrow \underline{\underline{-0.0}}$

$\text{Math.rint}(-9.5); \rightarrow -10.0$