

**Answer on Question #82456 – Math – Statistics and Probability**

**Question**

What is the expected value of X?

$x_i$	$P(x_i)$
0	1/3
1	1/3
2	1/6
3	1/6

**Solution**

Note that

$$E(X) = \sum x_i P(x_i) \quad [1]$$

Hence consider the table

$x_i$	$P(x_i)$	$x_i P(x_i)$
0	1/3	0
1	1/3	1/3
2	1/6	2/6
3	1/6	3/6

Thus, from [1], the expected value is

$$E(X) = 0 + \frac{1}{3} + \frac{2}{6} + \frac{3}{6}$$

$$E(X) = \frac{7}{6}$$

**ANSWER:** option C,  $\frac{7}{6}$ .