

02-StatsReview

Thursday, January 23, 2020 8:39 AM

Experiment : roll two dice and sum

Possible outcomes : integers from 2-12

$6 \times 6 = 36$ possible outcomes

X	$P(X)$	$X \cdot P(X)$	$E(X)$	$X - E(X)$	$[X - E(X)]^2$	$P \cdot [X - E(X)]^2$
2	1/36	2/36	7	-5	25	0.69
3	2/36	6/36	7	-4	16	0.89
4	3/36	12/36	7	-3	9	0.75
5	4/36	20/36	7	-2	4	0.44
6	5/36	30/36	7	-1	1	0.14
7	6/36	42/36	7	0	0	0
8	5/36	40/36	7	1	1	0.14
9	4/36	28/36	7	2	4	0.44
10	3/36	30/36	7	3	9	0.75
11	2/36	22/36	7	4	16	0.89
12	1/36	12/36	7	5	25	0.69

$$\text{Var}(X) = 5.83$$

$$\text{sd}(X) = \sqrt{5.83}$$

$P(X)$

