

MODULE 12.2 - EXPECTED VALUE

LEARNING OBJECTIVES

In this section, you will:

- Expected value
- Fair game

EXPECTED VALUE

- State the definition of expected value.

- Explain a fair game.

MODULE 12.2 - CLASS NOTES

Complete the discrete probability table and compute the probabilities.

1.

x	$P(x)$
0	
1	0.23
2	0.12
3	0.12
4	0.02
5	0.21
6	0.16

- $P(x = 1)$
- $P(x > 4)$
- $P(3 \leq x < 6)$
- $P(2 < x \leq 5)$

For the following exercises, complete the table.

2.

x	$P(x)$	$x * P(x)$
1		0.12
2	0.24	
3		0.39
4	0.11	
5		

3.

x	$P(x)$	$x * P(x)$
		0.12
2	0.25	
	0.11	0.33
4	0.13	
5		

4. Javier volunteers in community events each month. He does not do more than five events in a month. He attends exactly 5 events 22% of the time, he attends 4 events 28% of the time, three events 13% of the time, two events 24% of the time, and one 13% of the time. Let X = the number of community events Javier volunteers for each month. Let $P(x)$ = the probability that Javier attends x events per month. Complete the probability distribution table.

x	$P(x)$	$x * P(x)$

On average, how many community events does Javier attend any given month?