

# Discrete Random Variables

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## 4.1 Probability Distributions for Discrete Random Variables

1. Could the following be a probability distribution?

X	P(X)
0	0.123
1	0.481
2	0.360
3	-0.072
4	0.108

2. Could the following be a probability distribution?

X	P(X)
2	0.13
4	0.25
6	0.31
8	0.22
10	0.19

3. Could the following be a probability distribution?

X	P(X)
2	0.103
4	0.193
6	0.321
8	0.254
10	0.129

Answers:

1. No, negative values cannot be probabilities.
2. No, the sum of the probabilities has to add to one.
3. Yes, it meets the requirements of a probability distribution.