Quiz 5

1

1/1 point (graded)
Which 2 of the following are true about the expectation of a random variable?

☑ Not random ✔

☐ Random value

☑ Property of the distribution ✔

☐ Independent of the distribution

✔

Answer
Correct:
Video: Expectation
Video: Expectation
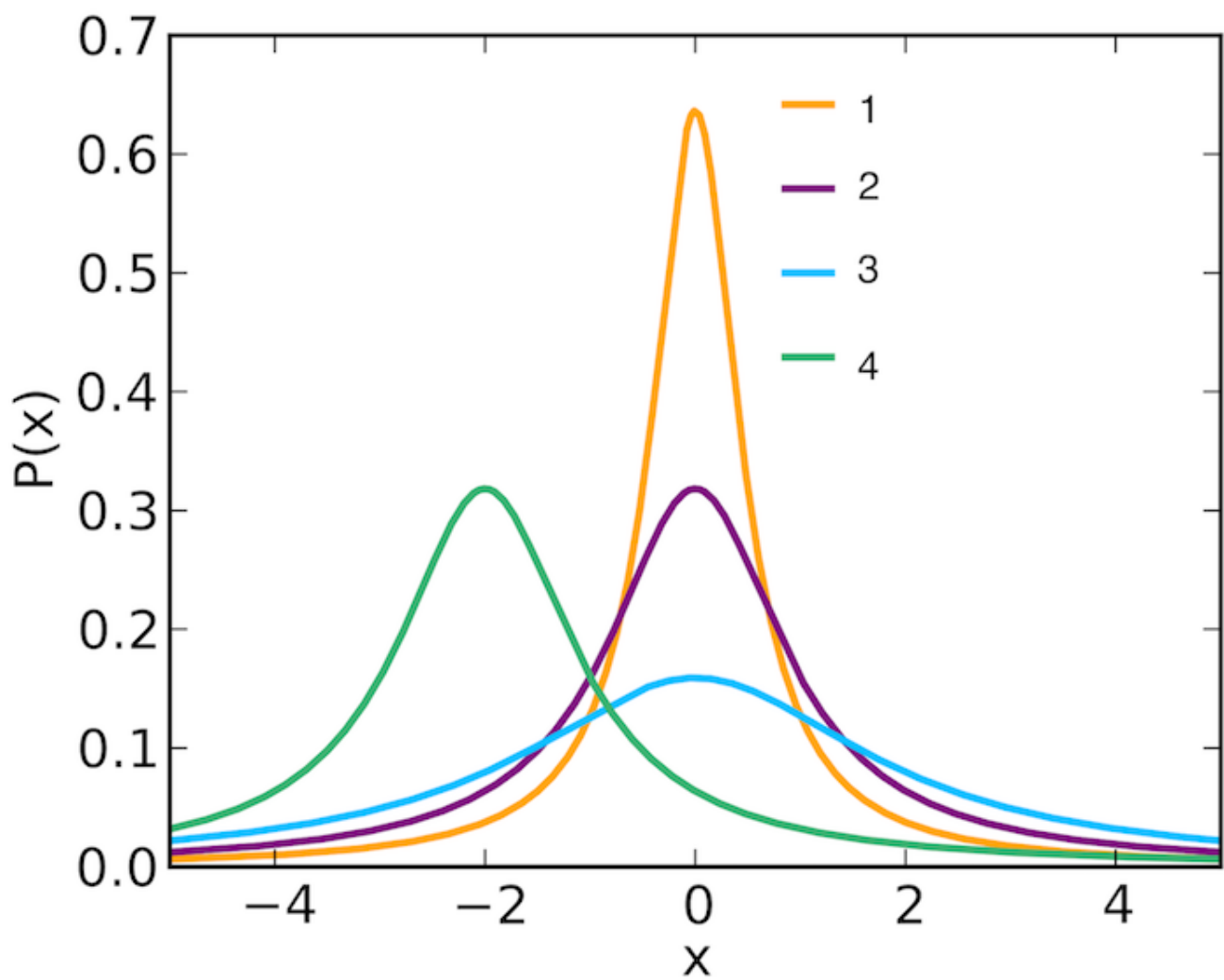Video: Expectation
Video: Expectation

Submit

ℹ Answers are displayed within the problem

2

1/1 point (graded)
Given 4 probability density functions, which one shows the greatest variance?

- ○ 1

- ○ 2

- ◉ 3 ✔

- ○ 4

Answer
Correct: Video: Variance

Submit

3

1/1 point (graded)
Which of the following statements are true about all **Independent** random variables, X and Y?

☑ $P(X|Y) = P(X), P(Y|X) = P(Y)$ ✔

☑ Rows of the probability distribution table are proportional to each other. ✔

☐ The probability distribution table is symmetric along either diagonal.

☐ $P(X|Y) = P(Y|X)$

✔

Answer
Correct:
Video: Two Variables

Submit

4

1/1 point (graded)
The Cauchy-Schwartz Inequality gives boundaries of the expected value of a product of random variables.

◉ True ✔

○ False

Answer

Correct: Video: Covariance

Submit

ℹ Answers are displayed within the problem

5

1/1 point (graded)
The correlation coefficient between X and $-X$ is 0.

○ True

◉ False ✔

Answer
Correct: Video: Covariance

Submit

ℹ Answers are displayed within the problem