

Stat 2153 - Statistical Methods

Quiz #6 - 2008.03.13

Name: _____

Three males with an X-linked genetic disorder have one child each. The random variable x is the number of children among the three who inherit the X-linked genetic disorder.

x	$P(x)$
0	0.4219
1	0.4219
2	0.1406
3	0.0156

1. Show that the above information satisfies all the properties required to be a probability distribution.

2. Compute the mean of the probability distribution.

3. Interpret the mean found in problem 2, please use a complete sentence.

4. What is the probability that that at least two of the children will inherit the X-linked genetic disorder?