

Attendance Quiz 14

Name: _____ Date: _____

1. A study consists of randomly selecting 4 newborn babies and counting the number of boys. If we assume that boys and girls are equally likely and let x be the number of boys among 4 babies. Complete the probability distribution first then answer the questions.

x (boys)	$P(x)$	$x \cdot P(x)$
	$\sum P(x) =$	$\sum x \cdot P(x) =$

(a) Find the expected value for a probability distribution. ($E(x) = \sum [x \cdot P(x)]$ or $E(x) = np$ for a binomial)

(b) Find the standard deviation for a probability distribution: $\sigma = \sqrt{np(1-p)}$ for a binomial