

STA 110

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Fall 1995 **Name:** _____

Quiz 3 (ver 2)

Stat Cola versus Prob Cola. In the Statland there are only two types of Cola: Prob Cola and Stat Cola. Only 10 % of cola drinkers prefer Prob Cola. Let X be the number of Stat Cola drinkers out of 4 randomly selected cola drinkers.

- Write down the probability distribution for the random variable X .
- What is the probability that $X < 4$?
- What is $EX = \mu_X$ and σ_X ?

Golfer. If it is assumed that a golfer will hit a drive into a sand trap 18% of the time, what is the probability that the player will hit the ball into a sand trap

- exactly three times out of first six holes;
- What is X here and what distribution does it have?
- Find $EX = \mu_X$ and $VarX = \sigma_X^2$.