Cats & Office Hours Independence

Indep require
$P(X,Y) = P(X)P(Y)$

- $P(Y=0, X=0) = .1$

  $P(X=0) = .45$
  $P(Y=0) = .25$

  $P(X=0)\,P(Y=0) = .1125$

- $P(Y=0, X=1) = 0.05$

  $P(X=1)\,P(Y=0) = .1 \times .25 = 0.025$

- $P(Y=0, X=2) = .1$

  $P(Y=0) \cdot P(X=2) = .1 \times .45 = 0.045$

- $P(Y=1, X=0) = .35$

  $P(Y=1)\,P(X=0) = .75 \times .45 = .34$

- $P(Y=1, X=1) = 0.05$

  $P(Y=1)\,P(X=1) = .75 \times .1$

  $= .075$

$P(Y=1, X=2) = .35$

$P(Y=1)\,P(X=2) = .75 \times .45$

$= .34$