

Here is the joint distribution function for a pair of discrete random variables:

	$X = 1$	$X = 2$	$X = 3$
$Y = 1$	.1	.1	.2
$Y = 2$	.2	.3	.1

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1. What is  $P(X + Y \leq 4)$
2. Make tables of the values of the marginal pmfs  $p_X(x)$  and  $p_Y(y)$ .
3. Are  $X$  and  $Y$  independent? Why or why not?
4. Find the numerical value of  $E(X + Y)$ .
5. Make a table of the values of the conditional pmf  $p_{X|Y}(x|2)$ .