

## Discrete Random Variables

Sunday, 27 July 2025 12:20 PM

**Example** - toss 3 coins at a time and find the probability of getting head

3 toss			Head
H	H	H	3
H	H	T	2
H	T	H	2
H	T	T	1
T	H	H	2
T	H	T	1
T	T	H	1
T	T	T	0

Discrete Prob. table  $\rightarrow$

$x$	0	1	2	3	(Head)
$P(X=x)$	$\frac{1}{8}$	$\frac{3}{8}$	$\frac{3}{8}$	$\frac{1}{8}$	

Sum of all prob  $\rightarrow$

$$= \frac{1}{8} + \frac{3}{8} + \frac{3}{8} + \frac{1}{8}$$

$$= \frac{8}{8}$$

$$= 1$$