

1. True. The outcome space is the set of numbers  $\{0, 1, \dots, n\}$ .
2. True. It is the binomial distribution with  $n = 1$  and  $p$  the probability of getting heads.
3. (a)  $n$  is the number of independent trials, and  $p$  is the probability of success in each trial.  
(b) The outcome space is  $\{0, 1, \dots, n\}$  because any number of successes between 0 and  $n$  is possible.  
(c) Just use the formula  $f(k) = \binom{n}{k} p^k (1-p)^{n-k}$  with  $n = 3, p = \frac{1}{2}$ , and  $k = 0, 1, 2, 3$ . This gives:

$k$	0	1	2	3
$f(k)$	$\frac{1}{8}$	$\frac{3}{8}$	$\frac{3}{8}$	$\frac{1}{8}$

