1. A class contains the following students as listed in the table. Let the random variable X denote the number of freshmen students selected in a sample of 6.

class
7 freshmen
5 sophomores
12 Juniors

Compute $P(X = 2) =$

Answer: $\dfrac{C(7,2) * C(17,4)}{C(24,6)}$

2. Classify the random variable as discreet or continuous.

X = The number of cadets that can fit in a single elevator.

discrete

3. Cards are drawn without replacement from a well-shuffled deck of 52 cards.
Let X = the number of cards drawn until an Ace is drawn.
Give the valid values for the random variable X.

X = 1, 2, 3, ..., 49

4. Here is the probability distribution for a random variable X.

X	-4	10	17	25	36
prob		0.2	0.1	0.15	0.30

(a) $P(X = -4) = 0.25$

(b) $P(X > 17) = 0.15 + 0.30 = 0.45$