

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

Compute $P(X = 4) =$

class
7 freshmen
10 sophomores
12 Juniors

Answer: $\frac{C(10, 4) * C(19, 2)}{C(29, 6)}$

2. Classify the random variable as discrete or continuous.

$X =$ The distance that a student walks during a day.

continuous since we are measuring distance

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

$X = 1, 2, 3, \dots, 27$

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

X	-3	6	12	21	40
prob		0.2	0.3	0.1	0.25

(a) $P(X = -3) = 0.15$

(b) $P(X > 12) = 0.1 + 0.25 = 0.35$