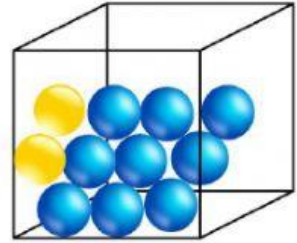


Q1) What's the probability of choosing two yellow balls in a row? Without replacing it back.

$$P(\text{yellow and yellow}) = P(\text{first yellow}) \times P(\text{second yellow})$$

$$P(\text{yellow and yellow}) = \frac{\quad}{\quad} \times \frac{\quad}{\quad} = \frac{1}{\quad}$$



Q2)

**PERFORMING ARTS** Tyesha and Liam sign up for an open mic night with 32 available slots that are filled at random. What is the probability that Tyesha will perform first and Liam will perform second?

$$P(\text{Tyesha and Liam}) = P(\text{first is Tyesha}) \times P(\text{second is Liam})$$

$$P(\text{Tyesha and Liam}) = \frac{\quad}{\quad} \times \frac{\quad}{\quad} = \frac{1}{\quad}$$

Q3)

### Check

Five geometry students are asked to randomly choose a polygon and describe its properties. What is the probability that the first three students choose the hexagon, the pentagon, and the triangle, in that order?



$$P(\text{hexagon and pentagon and triangle}) = P(\text{first is hexagon}) \times P(\text{second is pentagon}) \times P(\text{third is triangle})$$

$$P(\text{hexagon and pentagon and triangle}) = \frac{\quad}{\quad} \times \frac{\quad}{\quad} \times \frac{\quad}{\quad} = \frac{\quad}{\quad}$$

Q4)

**SLIDESHOW** For a project, Rami selects 12 family photographs that will randomly play in a slideshow. The slideshow will not show repeat photos until all 12 photos have been shown. Three photos are of Rami's entire family, two photos are of his brother, three photos are just of him, and four photos are of his sister. What is the probability that the first four pictures in the slideshow will be of Rami's sister?

$$P(\text{sister sister sister sister}) = P(\text{first sister}) \times P(\text{second sister}) \times P(\text{third sister}) \times P(\text{fourth sister})$$

$$P(\text{sister sister sister sister}) = \frac{\quad}{\quad} \times \frac{\quad}{\quad} \times \frac{\quad}{\quad} \times \frac{\quad}{\quad} = \frac{\quad}{\quad} = \frac{\quad}{\quad}$$