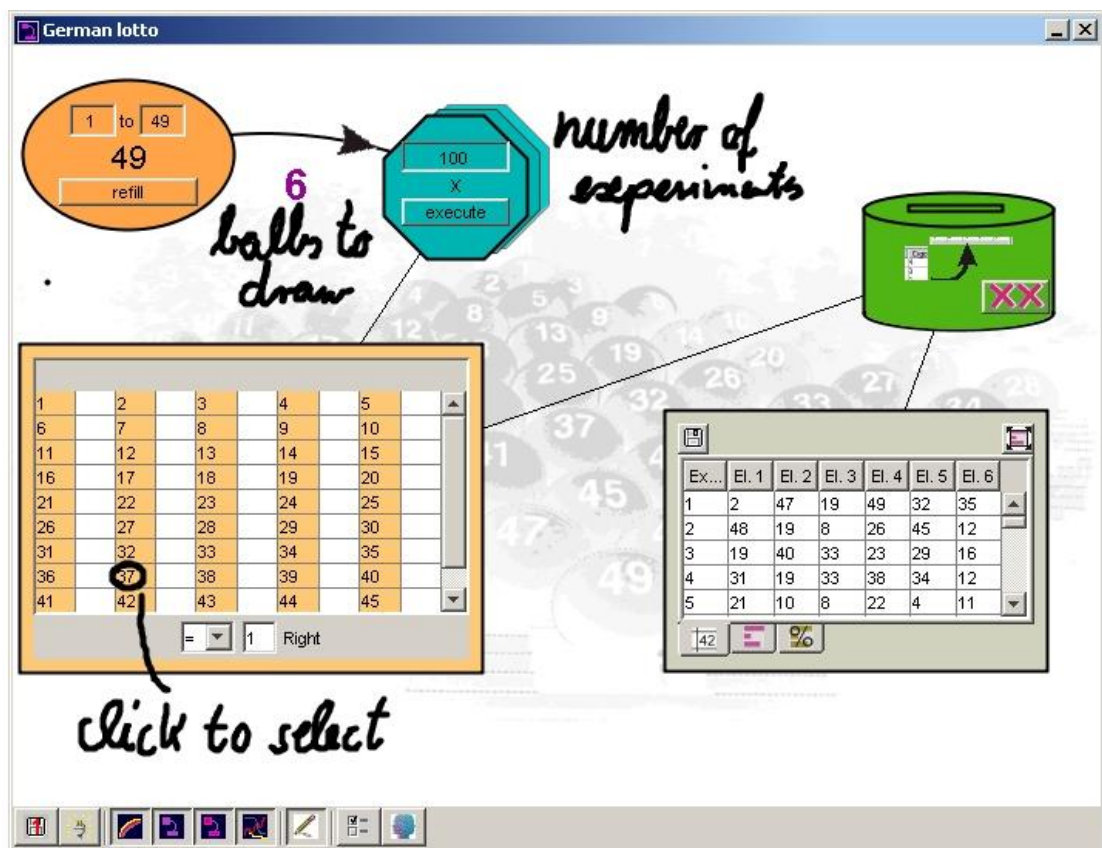


Stochastic experiments

lottery games

It is a special characteristic of lottery games that only a few positive results exist among a very large number of outcomes. Automatic analysis of the experiments using “filters” is necessary. In German Lotto “6 out of 49” balls are drawn.

1. Open the file *GermanLottoStart.xml*. Here you will find a model which simulates the drawing of 6 balls out of an urn using a filter for automatic analysis. Use the button at the bottom of the workspace to show or hide the annotations.



2. Fill the filter with your bet. (Click on your six favourite numbers!)
3. How often do you find „3 hits“ in German Lotto „6 out of 49“ in 10000 experiments? Note down the “probability”?
4. How many experiments do you need to get „5“ or even „6 hits“?

- Extend the model to compute the probability of the event “5 hits with additional number”. Get another filter, another green collector and a result table from the palette. Connect them with simple edges! Couple and share your results with other participants.

Solution for 5.:

