

Bertrand's box paradox

With a partner, discuss the probability that the other side of the card is black.

Can you give an argument to support your answer?

Simulate this situation to find an experimental probability. What do you find?

Can you produce a theoretical argument to support the simulation probability?

Suppose now that in the first box, each of the three drawers has a gold coin. In the second box, each drawer has three silver coins. In the third box, there are two drawers with gold coins and one with a silver coin.

Choose a box at random. Randomly choosing first one drawer and then a second from this box reveals two gold coins. What is the probability that the *other* drawer contains a silver coin?

Try to work this out theoretically.
