

# Penalty shoot-out

When a football player takes a penalty shot, they may aim at the left, the right, or the centre of the goal. The goalie might leap to defend the left, the right, or the centre of the goal.

**Run an experiment to simulate 52 penalty goals.**

In the 2015 U20 FIFA world cup quarter finals, some of the games went to penalty shoot-outs. In these shoot outs, there were a total of 52 penalty shots, 35 of which were successful.

**Compare the results of your simulation with the results of the 2015 FIFA world cup quarter finals.**

Assumptions to make:

- The player taking the shot and the goalie each choose one of the three possible targets at random.
- If the goalie defends the correct target, they will make a successful save.
- If the goalie does not defend the correct target, a goal will be scored.

