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THINK MATHS

Psychic Pets Predict World Cup Winners

A pet is shown three toys, one that represents team A winning, one that represents team B winning and one that represents a draw. The pet makes its prediction for the outcome of the game by the toy it chooses.



Django the Dog predicts the result of the England V Tunisia game.

Predict Group G games

- 1) Each group has 4 teams in it, where each team plays every other team. Your pet is going to make a prediction for every game in England's group (Group G). How many predictions do they make?
- 2) How many pets would you need to have so every possible combination of outcomes for the Group G games is covered? (Assume that every pet predicts a different combination of outcomes).

Predict all group stage games

- 3) There are 8 groups in the whole tournament. Your pet is going to make a prediction for every game in every group. How many predictions do they make?
- 4) Again, assuming every pet predicts a different combination of outcomes: how many pets would you need to cover every possible combination of outcomes for all the group stage games?

The knock-out stage follows the group stage. In knock-out games there are no longer any draws. Use the World Cup Fact Sheet to find out more about the knock-out stage for the next two questions.

Predict the whole tournament

5) How many pets would you need to guarantee one will predict the whole tournament correctly?

Predict England's World Cup

6) How many possible World Cup journeys can England have?



