Mastermind

The goal of this puzzle is to determine the order in which the color goes.

In this puzzle, there are four colors

Red   Blue   Green   Purple

They are in some order, but the order is unknown.

First Guess

lets say that you make a guess and say that the order is

red, blue, green, purple

→ 🔴 🔵 🟢 🟣 = 2

I will tell you that only 2 of the colors are in their right position. Other two are not.

Second Guess

You made another guess, and say that the order is

blue, red, green, purple

🔵 🔴 🟢 🟣 = ⚪

I say that none of them are in their right position.

Rules

1. Only one position per color

2. Only one color per position

Task

Encode the above game in propositional logic and figure out the correct order of the colors.