



We know that each face of a solved Rubik's® cube is a different color. The white face is opposite the yellow face. The red face is opposite the orange face. The blue face is opposite the green. But is it possible to

... have each of the six colors appear on a face so that no adjacent squares are the same color?



Sure you can! What's the fewest number of moves to make this happen? (Yours doesn't have to look exactly like the example as long as it meets the criteria.)



Does the **opposite face** have the same characteristics (all 6 colors, no adjacent squares the same color)? Why or why not? Is it even possible to have opposites with these characteristics?



Is it possible to have all **4 of the lateral faces** have all 6 colors but no adjacent squares the same color? Color a net to show your solution. Will everyone who tackles this problem have the same net?



Is it possible to have the **all 6 faces** display all 6 colors with no adjacent squares the same color? Color a net to show your solution. Will everyone who tackles this problem have the same net?



Share your comments, questions, and solutions with us on Facebook!
<https://www.facebook.com/YouCanDoTheRubiksCube>.