

Updated: May 4th, 2020

Problem: oh no how do I convert from color to angle in Colorpicker??

1. *Understand the reverse equation.* You are given an equation for Angle \rightarrow Color. Check the abstract classes for a certain method.
 - a. Let's break down the equation...
 - i. Convert radians to degrees \rightarrow `Math.toDegrees(angle)`
 - ii. Account for possible negative values $\rightarrow + 360$
 - iii. Account for color placement on our wheel.
 1. See [HSV color wheel](#) compared to our version of the color wheel.
Where is the placement of red? $\rightarrow + 90$
 - iv. Convert degrees to hue
 1. Assume that each degree corresponds to a specific hue $\rightarrow \% 360$
 2. Hue \rightarrow HSV: Color = hue, saturation, value. We are assuming full saturation and value for our color wheel (1f).
 - v. Convert HSV to Color (an int)
 1. `Color.HSVToColor(new float[] {hue, 1f, 1f});`
2. // TODO: *Implement getAngleFromColor.*
 - a. Color (int) \rightarrow HSV, again assume full saturation and value. See ColorUtils documentation for a handy method.
 - b. HSV \rightarrow hue
 - i. HSV is in the form of a float array with 3 values... in that order... which of these shall you pick? :)
 - c. Hue \rightarrow radians (do part 1ai~iv backwards)