



## Color Contrast Checking – Using WebAIM

### → Defining Color Contrast

Contrast is the difference between the foreground color and background color. It is imperative that the contrast ratio be a minimum of **4.5:1**. Always maximize the contrast ratio at every opportunity!

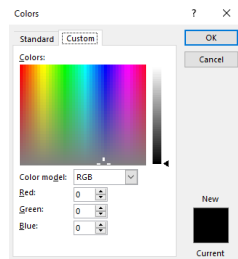


### → Determining the Contrast Ratio

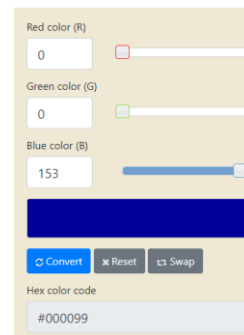
This reference provides manual steps for calculating the contrast ratio when using an installed tool is not possible. Many tools and sites exist for this purpose, but this reference is specific to the WebAIM website. A Microsoft Office application will be used for this guide.

1. In a MS Office application (i.e. Word, PowerPoint, Excel, Publisher) select text displaying a color for testing.
2. Navigate to **Home > Font group > Font Color options > More Colors**.

3. In the **Colors** dialog, navigate to and activate the **Custom** tab.
4. Confirm that **RGB** is selected in the **Color model** drop down.
5. Note the **Red, Green and Blue (RGB)** values of the selected color.



6. The WebAIM Contrast Checker utilizes hexadecimal (6-digit) color codes to determine the contrast ratio. To convert the values navigate to [RapidTables RGB to Hex color conversion](#) and enter the RGB values.

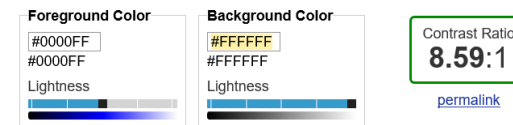


7. Activate **Convert** and note the displayed **Hex color code**.
8. Repeat steps 1-7 to collect the hex codes for all colors that need to be tested.
9. Next navigate to the [WebAIM Contrast Checker](#).

10. Enter the hex color codes in the **Foreground Color** and/or **Background Color** fields as appropriate. The default **Background Color** is white (#FFFFFF).

#### Contrast Checker

[Home > Resources > Contrast Checker](#)



11. Note the **Contrast Ratio** displayed. A ratio of **4.5:1** or greater is required to pass HHS accessibility standards.

### → Hints

1. Black (#000000) on White (#FFFFFF) has a contrast ratio of 21.0:1.
2. HHS Reflexive Blue (#000099) against White has a sufficient contrast ratio of 14.38:1.
3. In an Office application's font color picker, use "Dark Red" instead of "Red" for a sufficient contrast ratio.
4. If necessary, create foreground text that emulates the background color in order to gather the RGB values.