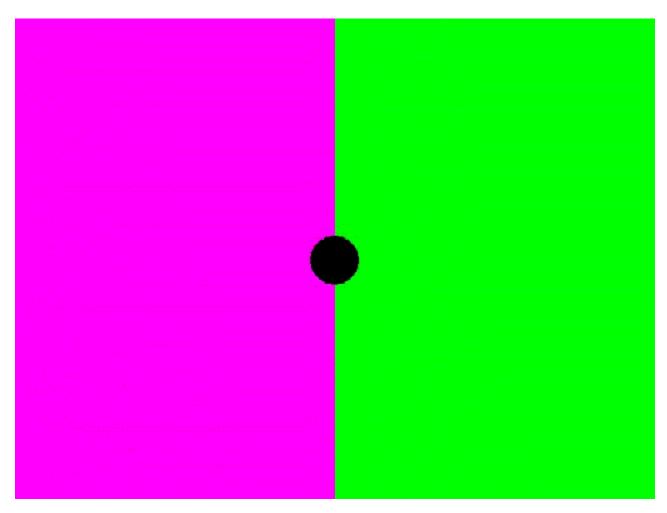
Answer #300

The answer is (f) The left side will be bright green and the right side will be pale green. This can be observed directly by the following procedure:

Click on the picture below, which will create the first slide with the appropriate size and position. Place your mouse locator on the black dot, then count 20-30 seconds. After 20-30 seconds has elapsed, click your mouse on the black dot, producing the second slide in the same position. Then click on the black dot on the second slide to return to this page for the explanation below. You can use the "forward" and "back" arrows at the top of your browser to toggle back and forth between the two slides.



An easier way to do this experiment is to use a PowerPoint slide show, because the pictures are always the correct size. Click here to view the PowerPoint slide show. You may go back and forth between the two slides of interest by using the standard arrows on your keyboard. Just close PowerPoint to return to this page.

When you stare at the magenta/green pattern, your red and blue cone receptors (magenta is red plus blue) are saturated on the left side of your field of vision, as are the green receptors on the right side of your field. When you switch to the second slide, because the left side is white it excites ALL

THREE of your color receptors. However, because your red and blue receptors are saturated, the green receptors in fact have a much stronger response.

On the other hand, because the green color is the same on the first and the second slide, and your green receptors have been saturated by staring at that color, the green color on the right is pale and washed out compared with the "green" on the left.

Thus the left side, which is actually white, appears a more brilliant green than the green side, on your right.

So apparently white is greener than green.

Question of the Week

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For questions and comments regarding the *Question of the Week* contact <u>Dr. Richard E. Berg</u> by e-mail or using phone number or regular mail address given on the <u>Lecture-Demonstration Home Page</u>.

What is Greener Than Green?

Go to first slide

