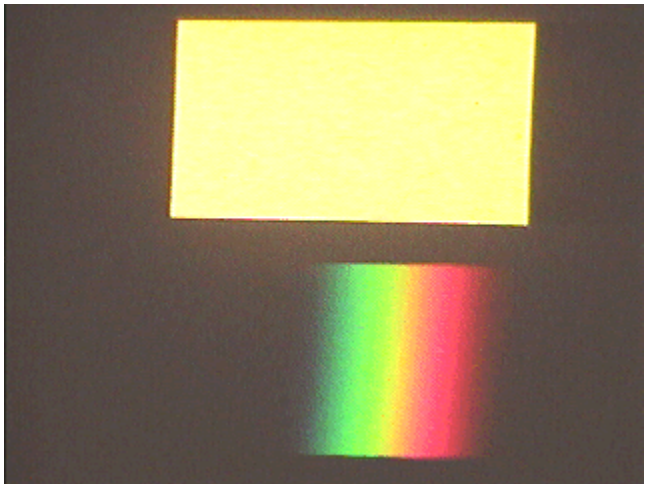
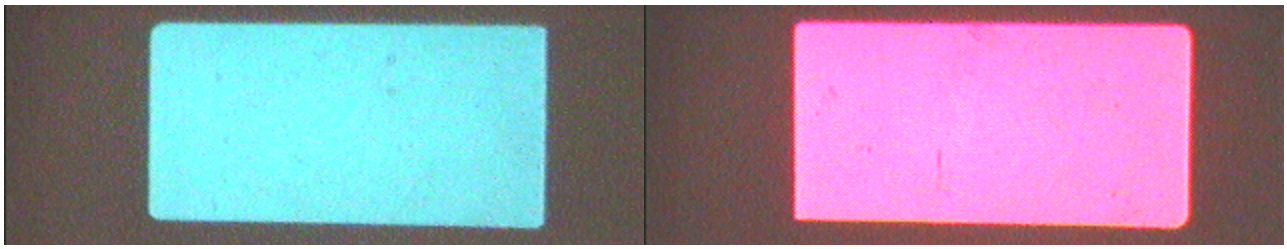
Answer #193

The answer is (e): be like the white light spectrum above with some other color missing, as seen in the photograph below that contains both the color patch and its spectrum.



A negative filter achieves its color by removing the *complementary* color of light from the spectrum. Because yellow and blue are complementary colors, a negative yellow filter removes blue light from its spectrum.

If the two color patches below are produced by placing negative filters in front of white light, what will their spectra look like?



Click here for the answer.

Archive 10

Question of the Week

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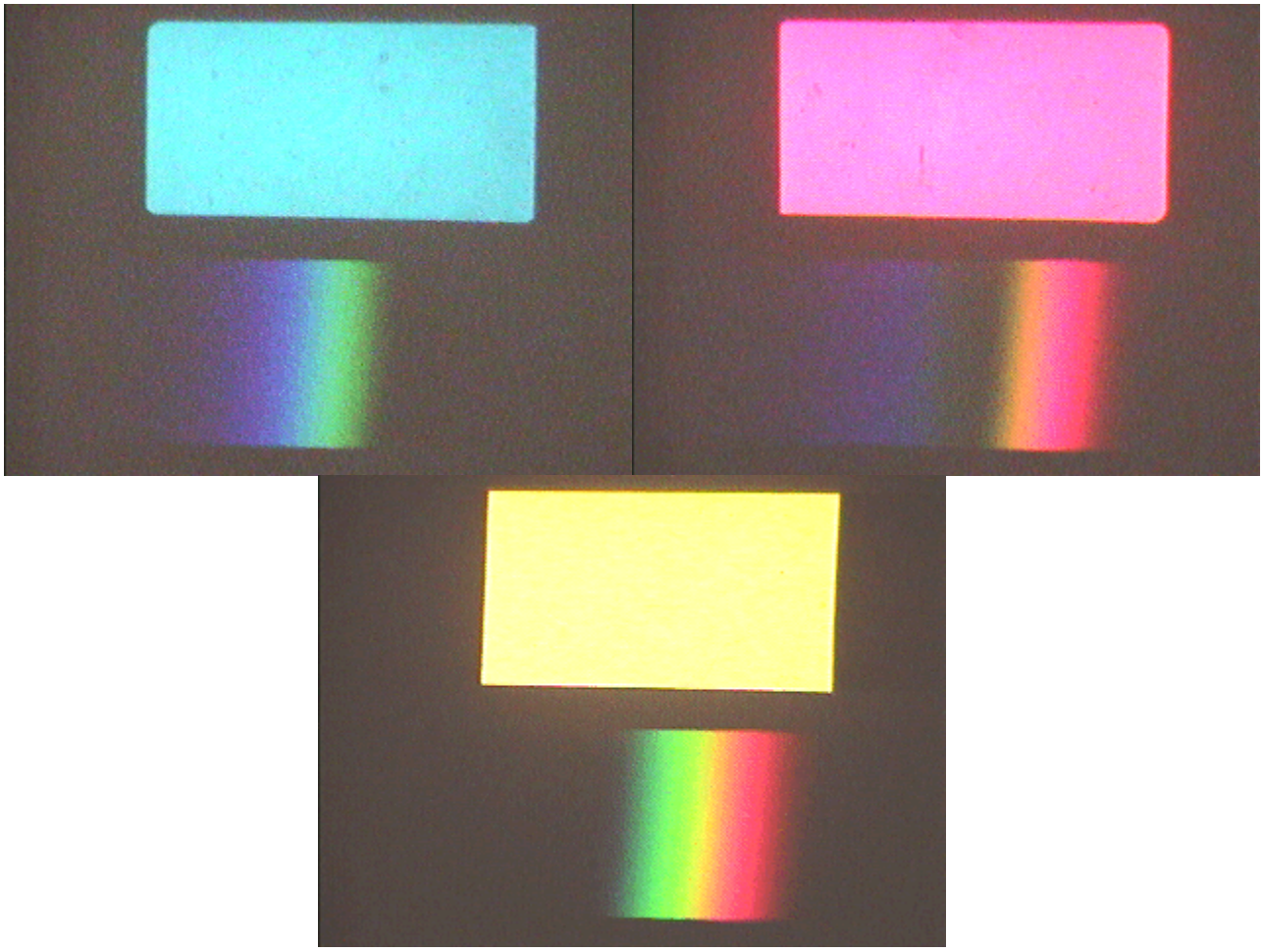
For questions and comments regarding the *Question of the Week* contact Dr. Richard E. Berg by e-mail or using phone number or regular mail address given on the Lecture-Demonstration Home Page.

Negative colors and their spectra

Here are the color patches and the respective spectra for the three "negative" colors of lights: cyan, magenta. and yellow.

Cyan and red are complementary colors, so cyan is produced by removing red from white light; magenta and green are complementary colors,so magenta is produced by removing green from white light; and yellow and blue are complementary colors, so yellow is produced by removing blue from white light.



Note that both yellow and cyan can be produced as *either* positive *or* negative colors. Magenta can only be produced by a negative filter because it is a non-spectral color.