

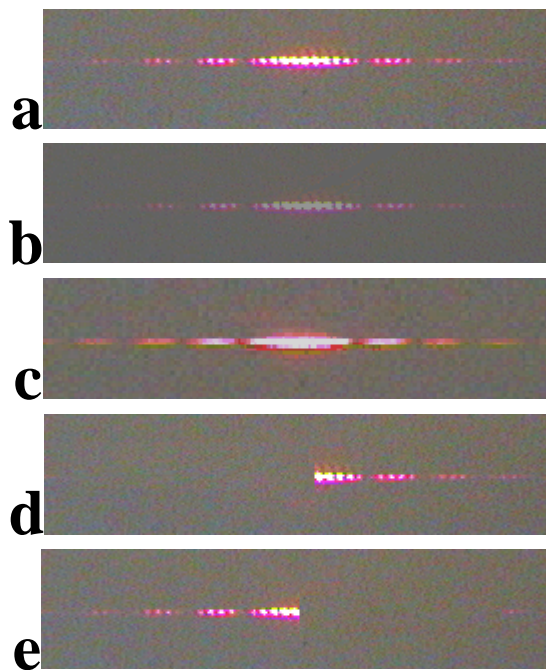
## Question #65

Laser light passes through two small slits and strikes a screen, as seen in the photograph of the apparatus at the left below. A double slit interference pattern, like that shown at the right below, is produced.



Now the LEFT slit (as you look along the optic axis in the direction the beam is moving) is closed by sliding a small piece of metal in front of it. What will the pattern look like after the left slit is blocked off?

Here are five possible results:



It looks like the first choice is the same as the original pattern (the pattern does not change); the second looks the same except that its intensity is less (only one slit is open); the third looks similar,

but without all of the little ridges; the fourth and the fifth appear to be images of only one of the slits, where one is inverted and the other is not.

Which of the selections is the correct pattern after one of the slits is blocked off:

- (a) a.
- (b) b.
- (c) c.
- (d) d.
- (e) e.

Click here for [Answer #65](#) after May 21, 2001.

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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](#).