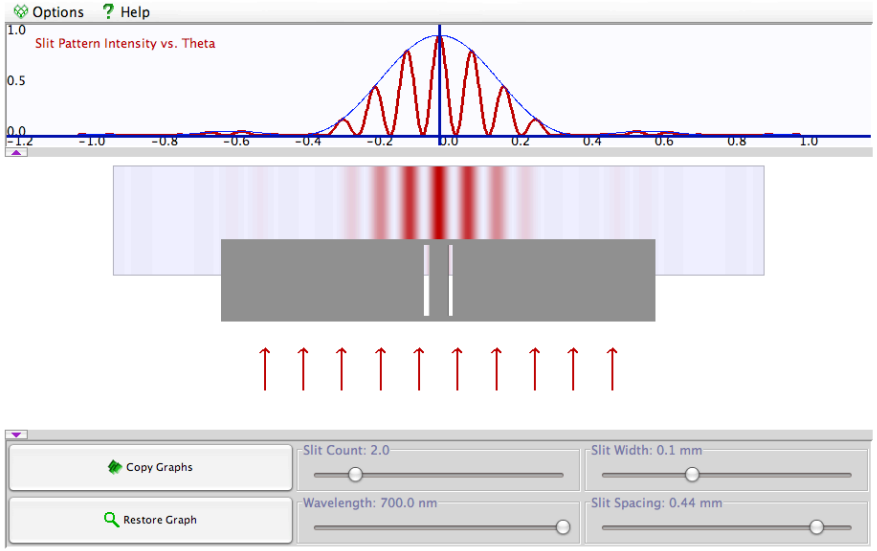
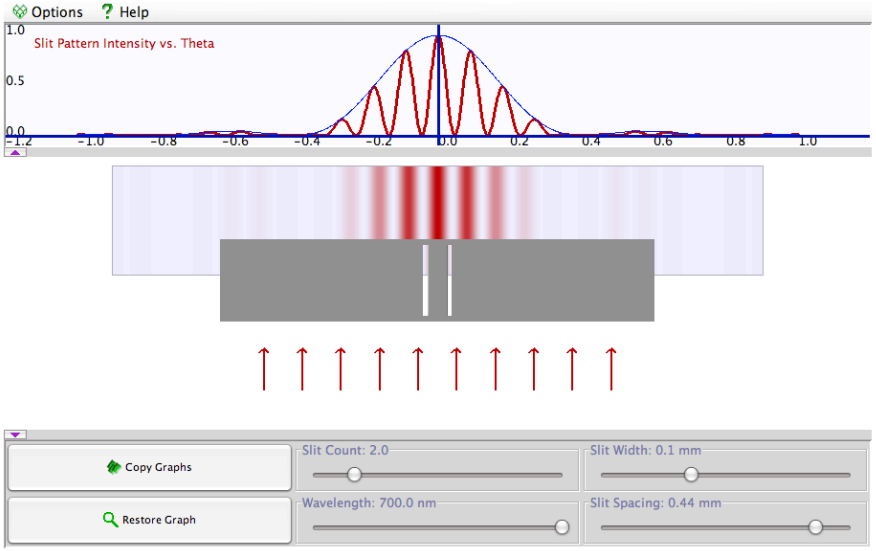
What can I do to keep the envelope the same but get more fringes squeezed into it?

1. Make the slits wider
2. Make the slits narrower
3. Make the slits farther apart
4. Make the slits closer together
5. Nothing you can do to the slits will do this.



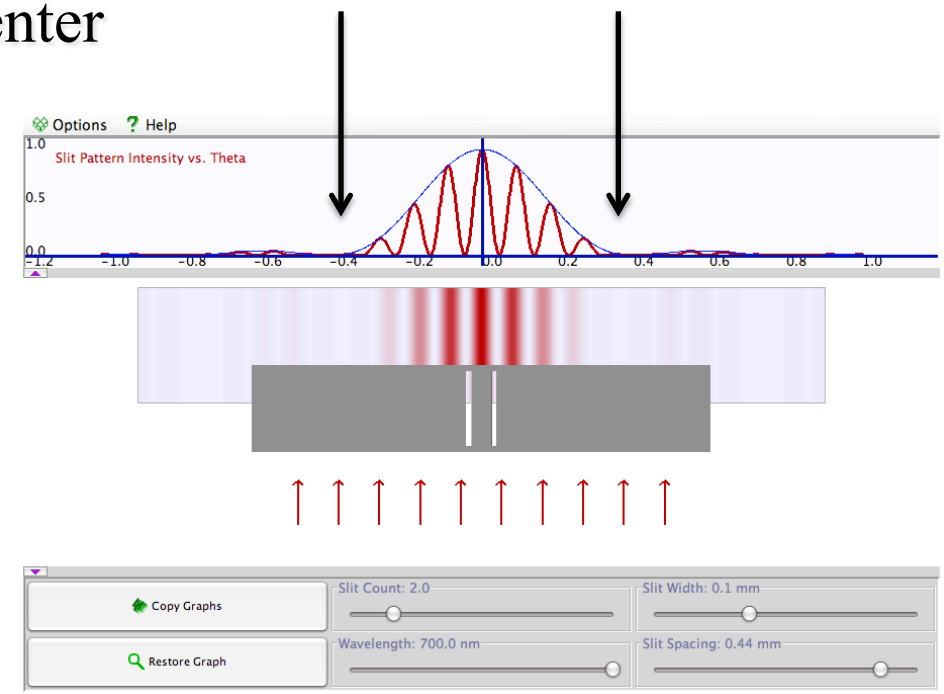
If the wavelength is decreased, what will happen to the fringes (narrow peaks shown in red)?

A. Fringes get wider
B. Fringes get narrower
C. Fringes stay the same
D. Something else

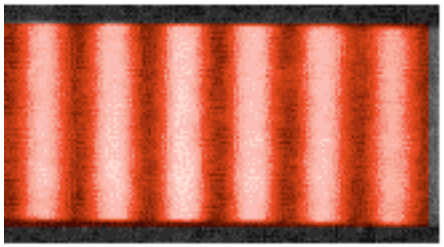


If the wavelength is reduced, what will happen to the squash point (the point where the fringes are driven to zero – shown by the dark arrow)?

A. Move toward the center
B. Move away from the center
C. Stay the same
D. Something else

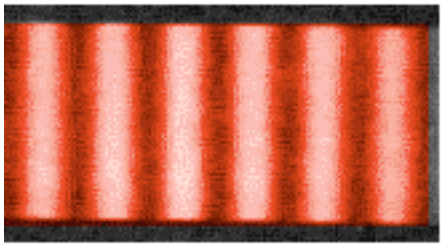


When a laser is shone upon a double slit, a close-up of the center of the pattern looks like the figure at the right. If one of the slits is covered (the left one) but the other slit remains open, what will this part of the pattern look like?



A. The same.
B. The left side will be dark.
C. The right side will be dark.
D. The whole thing will be bright.
E. The whole thing will be bright except for two dark bands at either side.
F. Something else.

When a laser is shone upon a double slit, a close-up of the center of the pattern looks like the figure at the right. If a filter is put in front of one of the slits (the left one) that reduces the intensity of the light from that slit by ½ what will this part of the pattern look like?



Single photons are directed, one by one, toward a double slit. The distribution pattern of impacts that make it through to a detector behind the slits is identical to an interference pattern. We now repeat this experiment, but block slit 1 for the first half of the experiment and slit 2 for the second half. The distribution of impacts in the second experiment is

A. the same as in the first experiment.
B. the sum of the distributions one gets for each slit separately.
C. neither of the above.