## Interference & Diffraction Exercise

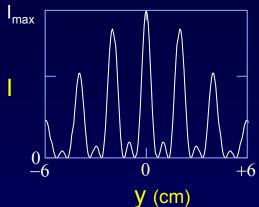
Light of wavelength  $\lambda$  is incident on an N-slit system with slit width a and slit spacing d.

1. The intensity I as a function of y at a viewing screen located a distance L from the slits is shown to the right. L >> d, y, a. What is N?



a) 
$$N = 2$$
 b)  $N = 3$ 

c) 
$$N = 4$$



2. Now the slit spacing d is halved, but the slit width a is kept constant. Which of the graphs best represents the new intensity distribution?

