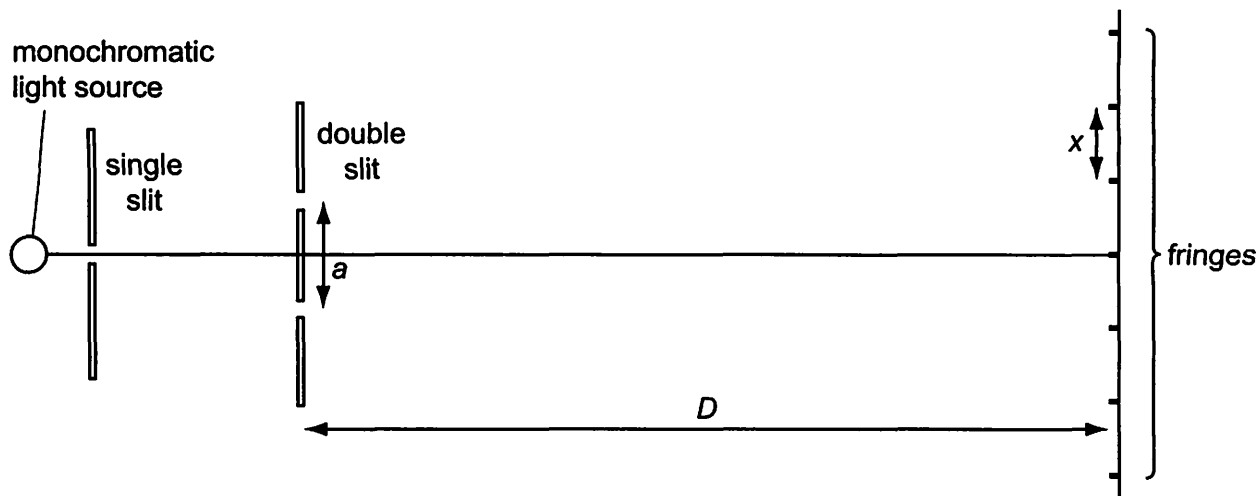


- 20 A monochromatic light source of wavelength  $\lambda$ , a single slit, and a double slit of separation  $a$  are set up in order to produce interference fringes of separation  $x$  at a distance  $D$  from the double slit.



Which pair of adjustments could be made **without** altering the fringe separation  $x$ ?

- A decrease  $D$  and decrease  $a$
- B decrease  $D$  and increase  $a$
- C decrease  $\lambda$  and decrease  $D$
- D increase  $\lambda$  and increase  $D$

21 Which equation correctly relates the wavelength of light  $\lambda$ , the separation of the slits  $a$ , the distance to the screen  $D$ , and the fringe separation  $x$ ?