

- 23** Using monochromatic light, interference fringes are produced on a screen placed a distance D from a pair of slits of separation a . The separation of the fringes is x .

Both a and D are now doubled.

What is the new fringe separation?

A $\frac{x}{2}$

B x

C $2x$

D $4x$

- 24** Diagram 1 shows a ripple tank experiment in which plane waves are diffracted through a narrow