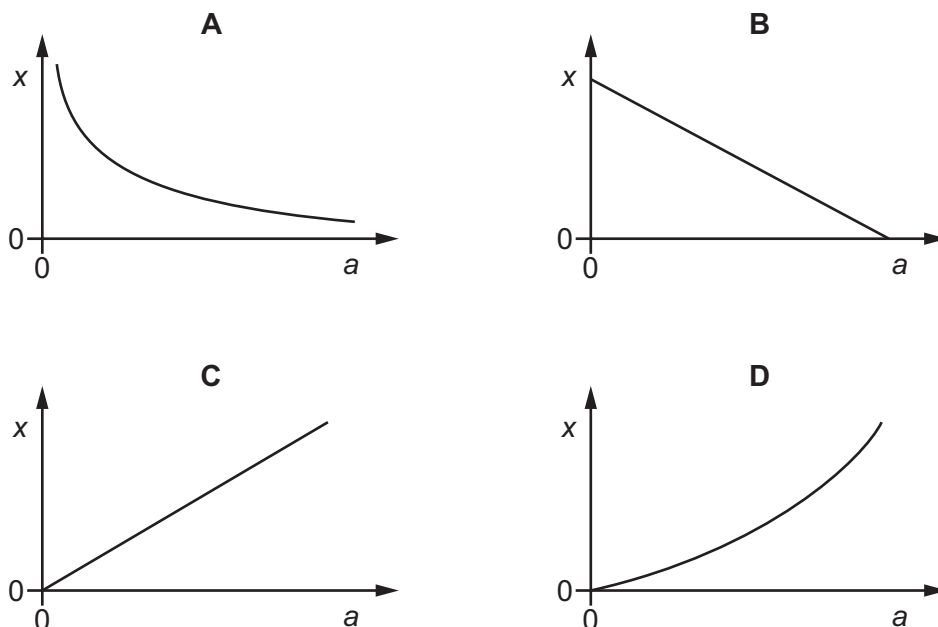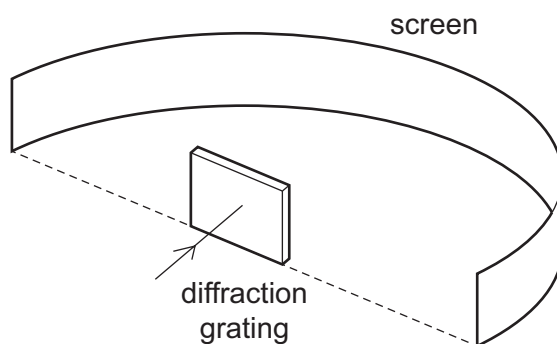28 Coherent light of constant wavelength is incident normally on a double slit. Interference fringes are formed on a screen that is a fixed distance from the double slit. The screen is parallel to the double slit.

The separation of the slits is varied.

Which graph best shows the variation with slit separation a of the spacing x of the interference fringes?

29 Light of wavelength 690 nm passes through a diffraction grating with 300 lines per mm, producing a series of bright spots (maxima) on a screen.

What is the total number of bright spots that are produced?

A 4   **B** 5   **C** 8   **D** 9