

- 26** Light passes through a diffraction grating ruled at 1000 lines per cm and the same wavelength of light also passes through two narrow slits 0.5 mm apart. Both situations produce intensity maxima and minima on a screen.

Which statement about the separation of the maxima on the screen and the sharpness of the maxima is correct?

- A** The diffraction grating maxima are less widely spaced and are less sharp than the two-slit maxima.
- B** The diffraction grating maxima are less widely spaced and are sharper than the two-slit maxima.
- C** The diffraction grating maxima are more widely spaced and are less sharp than the two-slit maxima.
- D** The diffraction grating maxima are more widely spaced and are sharper than the two-slit maxima.

Space for working