

- 20** Monochromatic light is incident on a diffraction grating and a diffraction pattern is observed.

Which row shows possible effects of replacing the grating with one that has twice as many lines per millimetre?

|          | number of orders of diffraction visible | angle between first and second order of diffraction |
|----------|---|---|
| <b>A</b> | decreases                               | decreases   |
| <b>B</b> | decreases                               | increases   |
| <b>C</b> | increases                               | decreases   |
| <b>D</b> | increases                               | increases   |