28 A student attempts to show the interference of light using two identical green LEDs.

Which statement explains why the experiement will **not** succeed?

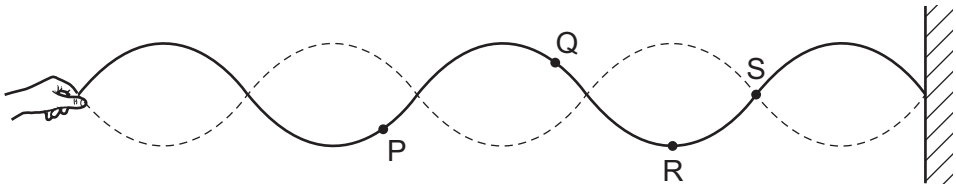
A The light waves from the sources are not coherent.

B The light waves from the sources do not have the same amplitude.

C The light waves from the sources have a range of wavelengths.

D The light waves from the sources are not monochromatic.

29 A stationary wave is set up on a stretched string, as shown.



Which statement about the points on the string is correct?

A Point Q vibrates with the largest amplitude.

B Points P and R vibrate in phase.

C Point S is an antinode.

D The horizontal distance between R and S is half the wavelength.

30 Monochromatic light is incident on a diffraction grating and a diffraction pattern is observed.

Which line of the table gives the effect of replacing the grating with one that has more lines per metre?

	number of orders of diffraction visible	angle between first and second orders of diffraction
A	decreases	decreases
B	decreases	increases
C	increases	decreases
D	increases	increases

Space for working