**Unit 5 – Waves: Quiz 2c**

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A young’s double slit interferometer is illuminated with green light of wavelength 546 nm. The double slits are 0.100 mm apart and the screen is 20.0 cm away form the slits. Find…

1. The angular position of the ***first minimum*** on the screen.
2. The angular position of the ***fifth maximum*** on the screen.
3. The distance, on the screen, between the first maximum and the fifth maximum.

Answers:

A young’s double slit interferometer is illuminated with green light of wavelength 546 nm. The double slits are 0.100 mm apart and the screen is 20.0 cm away form the slits. Find…

1. The angular position of the ***first minimum*** on the screen.

At the first minimum, path difference = 0.5λ



1. The angular position of the ***fifth maximum*** on the screen.

At the fifth maximum, path difference = 5λ



1. The distance, on the screen, between the first maximum and the fifth maximum.

