

Coherence of waves

Questions

1. Should the phase difference be zero for waves to be coherent?
2. Can waves of same colour having a phase difference of 180° be coherent?
3. Can two waves of different colours be coherent?
4. Can two coherent waves result in a net zero displacement in the medium?
5. Under what conditions can two coherent waves in maximum possible amplitude?

Note :

Questions given above may be visualized and solved using the simulations. However, obtaining a mathematical solution is to be always treated as the final answer and obtaining such a mathematical solution implies a deeper understanding and application of the concept.

Learn Explore Enjoy

SIGMA Physics resource Centre