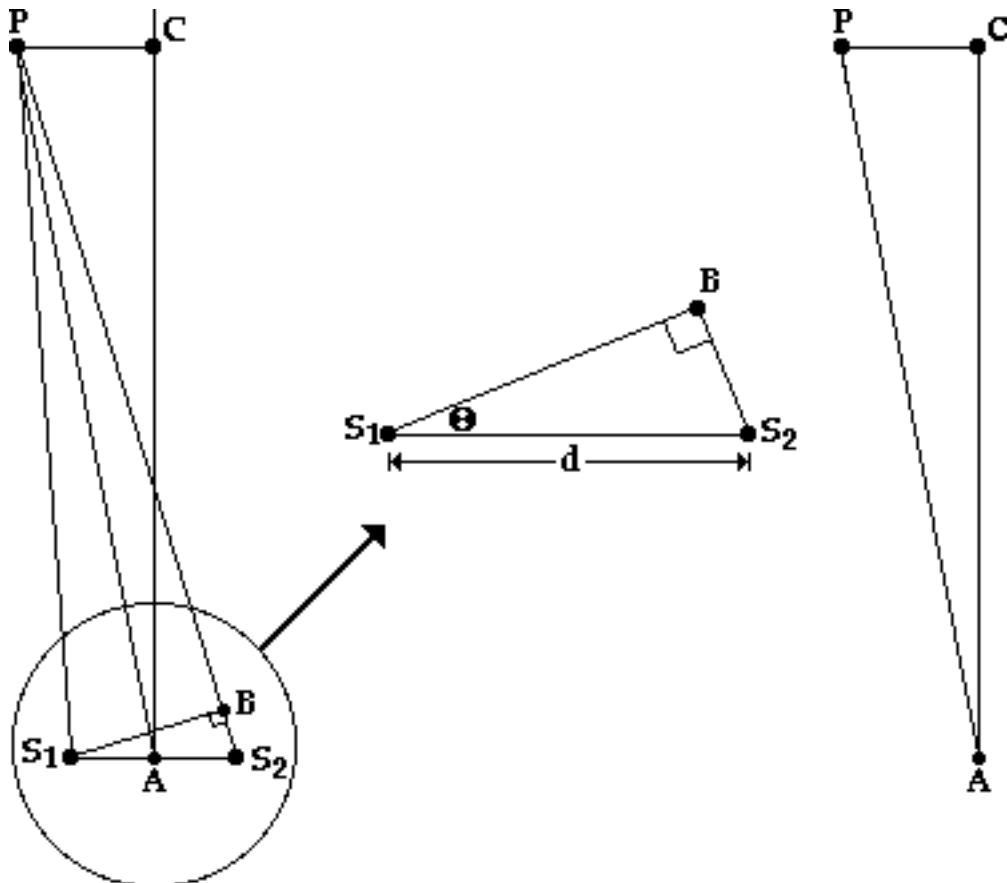


Mathematical Model for Two-Point Source Interference Patterns

The diagram below depicts two point sources and a point located on a nodal line of the interference pattern.



1. On the diagram above show where the following measured quantities would be made for point P₁:
 y , L , d , θ (twice), PD .
2. What two assumptions are needed in order to relate these variables mathematically?
 - a.
 - b.
3. Write the equation(s) relating these variables and show how they are derived.