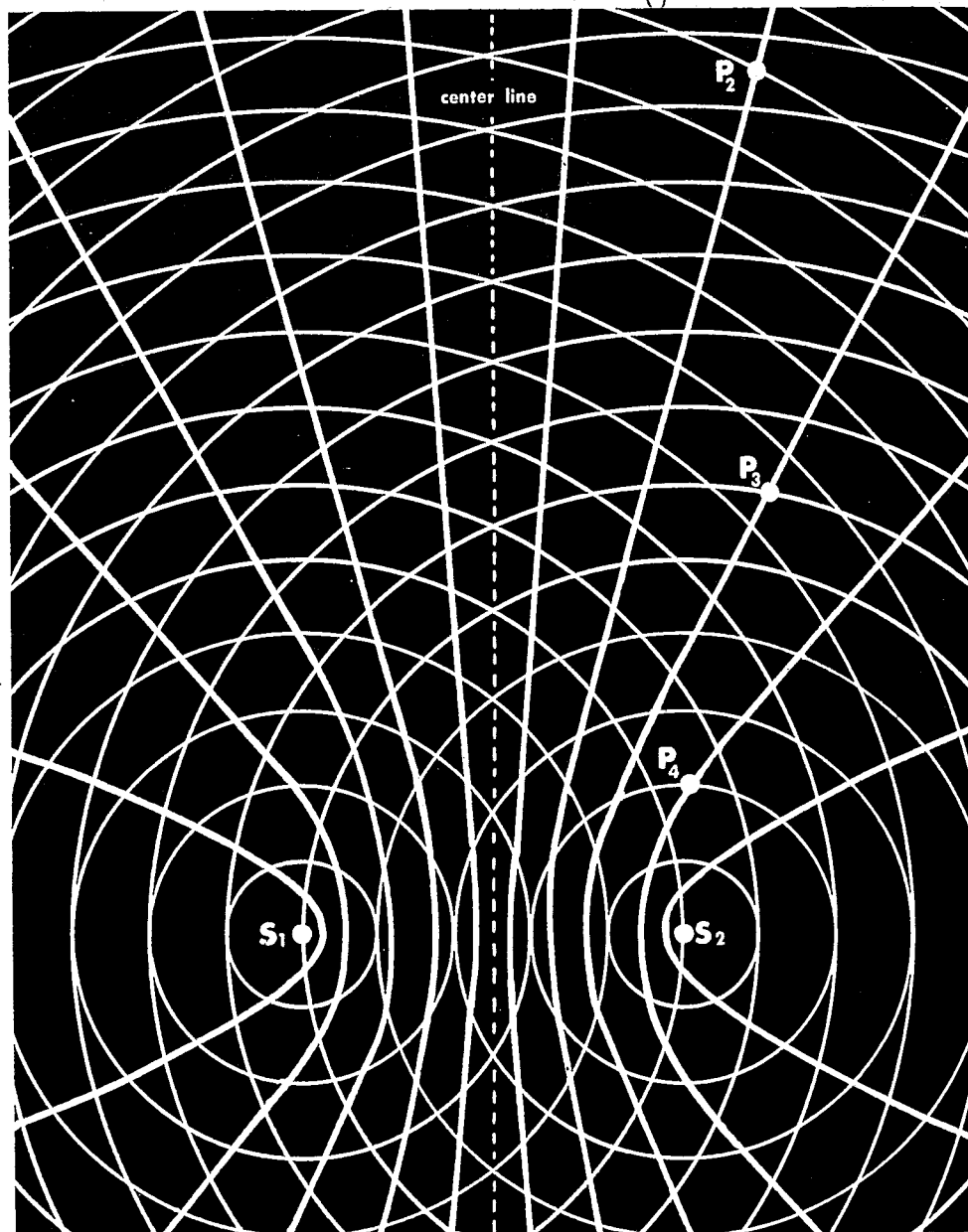


# QuickLab: Comparing Exact Pathlength Equation of Wavelength with Young's Double Slit Equation

Date:



Purpose: to compare the approximate equation for wavelength with the pathlength equation.

(c) Calculate the wavelength using the equations shown:

$$(i) \lambda = \frac{PS_1 - PS_2}{(n - 1/2)} =$$

$$(ii) \lambda = \frac{d x_n}{L (n - 1/2)} =$$

$n$	
$PS_1$	
$PS_2$	
$x_n$	
$L$	
$d$	
$\lambda$ measured	

How does the measured value compare with the calculated values using equation (i)? equation (ii)?

Conclusion: