

Problem Solving I

WAVES

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Overview: Problem Solving Waves



1. Summary of key ideas
2. Have a go at the questions
3. Vote for the questions you would most like to discuss.



Waves questions
tinyurl.com/ipts25ps1



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Key formulae



Physics

Speed, $c = f\lambda$ (frequency \times wavelength)

Speed, $v = \frac{d}{t}$ (distance / time)

Frequency, $f = \frac{1}{T}$ (T = time period)

Snell's Law of Refraction:

$$n_1 \sin \theta_1 = n_2 \sin \theta_2$$

Refractive index, $n_{medium} = \frac{c}{v_{medium}}$

Physics

Path difference, $d \sin \theta = m\lambda$ (constructive)

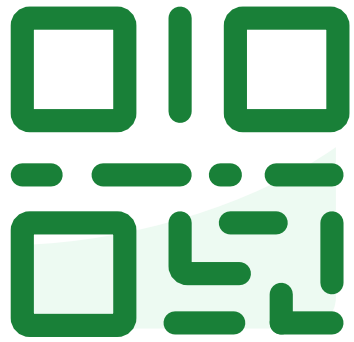
Optical path length, $n_{medium}x$

Doppler Shift, $\frac{\Delta f}{f} = \frac{\Delta v}{c}$

Maths

SOH | CAH | TOA (right-angled triangle)

$y = mx + c$ (Equation of a straight line)



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**Which of the following questions
would you most like to go through?**