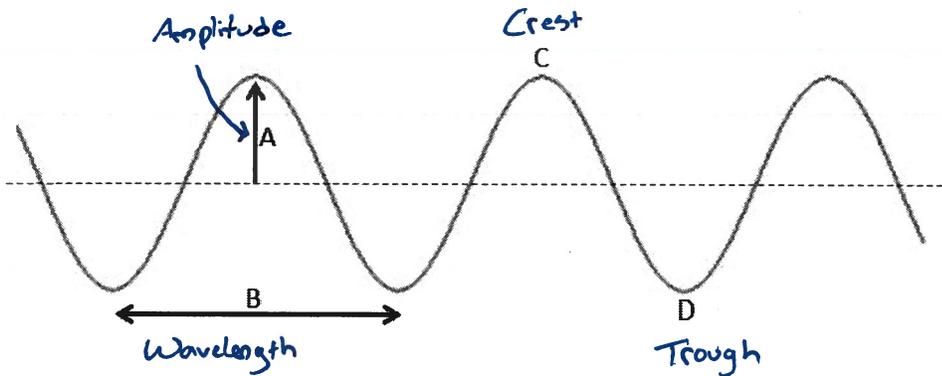


First Name: \_\_\_\_\_

Last Name: \_\_\_\_\_

**LO2 - Physics 20 - Formative Quiz - Waves and Wave Equation**

Q1: using the diagram below, label using correct wave terminology. (2 marks)



Q2: A light wave of frequency  $5.61 \times 10^{14}$  Hz travels at  $3.0 \times 10^8$  m/s through a vacuum. What color is this light wave? (3 marks)

Color	Wavelength ( $\times 10^{-9}$ m)
Violet	~ 430 to 380
Blue	~ 500 to 430
Cyan	~ 520 to 500
Green	~ 565 to 520
Yellow	~ 590 to 565
Orange	~ 625 to 590
Red	~ 740 to 625

$$v = f\lambda$$

$$(3.0 \times 10^8) = (5.61 \times 10^{14}) \lambda$$

$$\lambda = 5.34759 \times 10^{-7} \text{ m}$$

$$\lambda \approx 5.35 \times 10^{-7} \text{ m}$$



**MARKING:**

Beginning	0	-	2
Progressing	2.5	-	3.5
Competent	4	-	4.5
Exemplary	5		