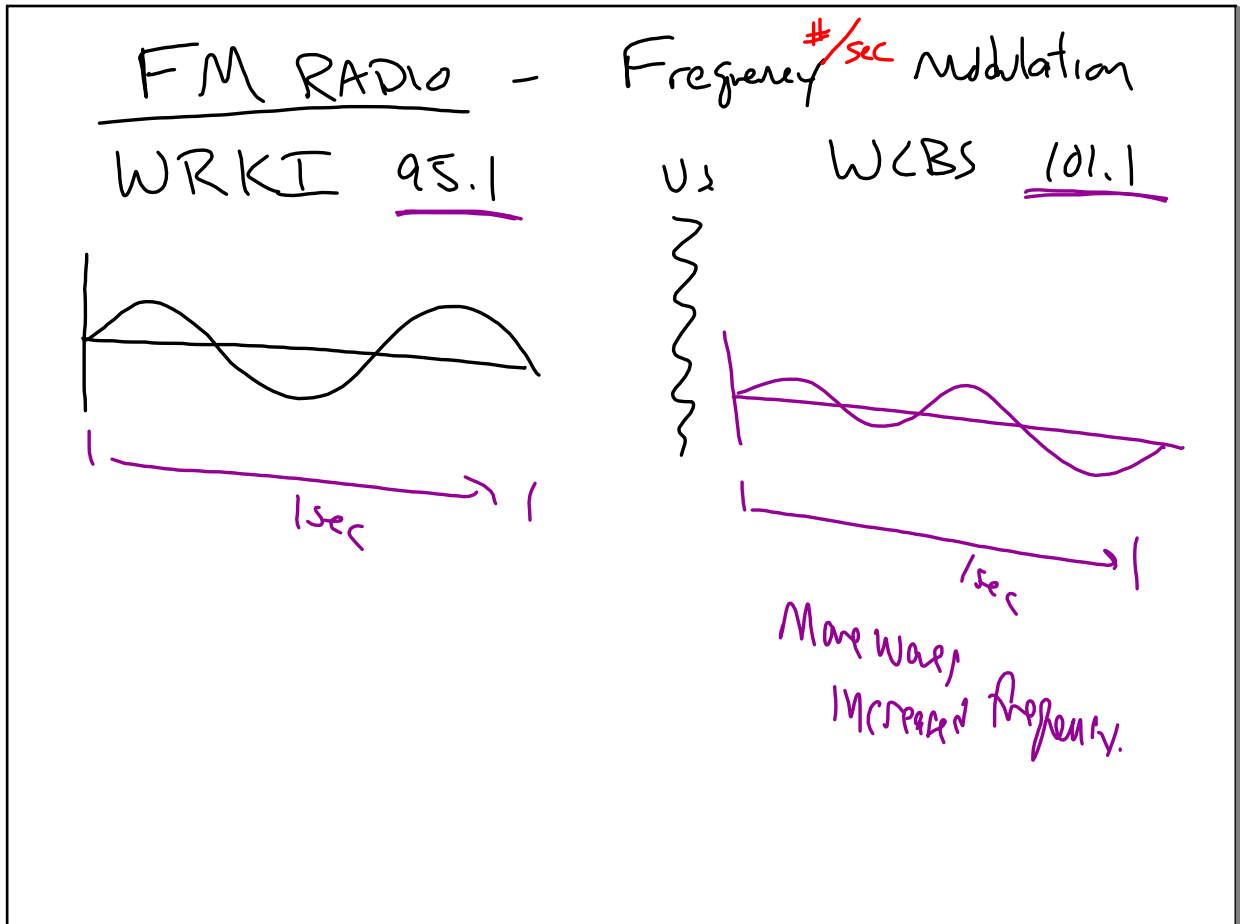
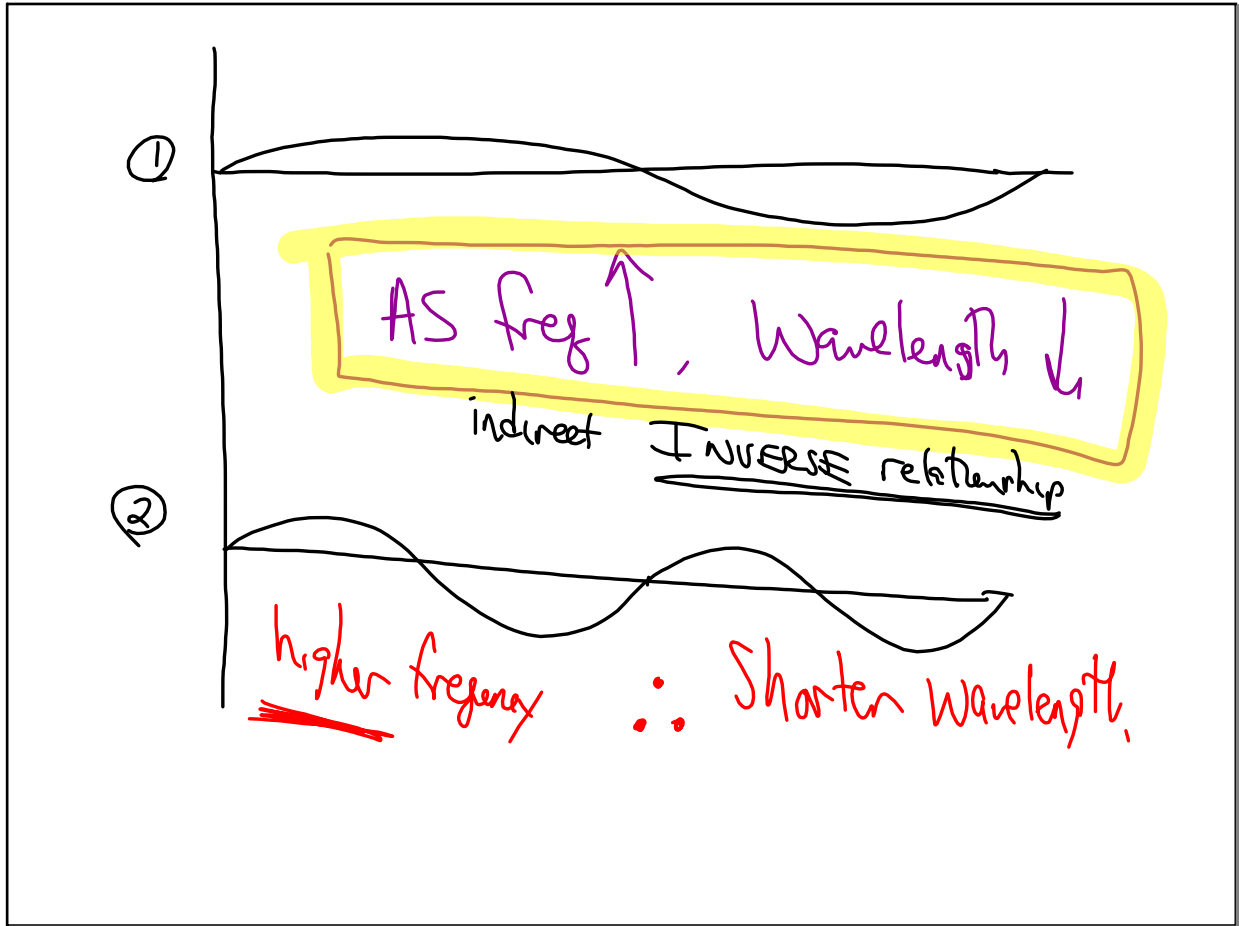


Oct 29-8:03 AM



Oct 29-8:18 AM



Oct 29-8:24 AM

Speed of Light

$3 \times 10^8 \frac{m}{sec} =$

$c = f \lambda$

frequency $\left(\frac{1}{sec}\right)$ or $\left(\frac{m}{sec}\right)$

LAMBDA Wavelength (m)

$\frac{x^3}{1} = \frac{1}{x^{-3}}$

↑

Oct 29-8:29 AM

$E \propto f$
 direct

$E = hf$
 Planck's constant
 6.63×10^{-34} J*sec

$E = hf$

$J * sec = h$

Relationship

$f \propto \frac{1}{\lambda}$
 Inverse

Add a constant.
 Equality

$c = f \lambda$

$f = \frac{c}{\lambda}$

$\frac{1}{\lambda} = \frac{c}{\lambda^2}$

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$E = hf$

$c = f \lambda$


$f = \frac{c}{\lambda}$

$E = \frac{hc}{\lambda}$

Oct 29-8:38 AM

Light - 589 nm $f = 5.09 \times 10^{14} \frac{1}{\text{sec}}$
 $E = 3.37 \times 10^{-19} \text{ J}$
 $c = f \lambda$
 $3 \times 10^8 = f(589 \times 10^{-9} \text{ m})$
 $f = 5.09 \times 10^{14} \text{ s}^{-1}$
 $E = hf$

Oct 29-8:40 AM


 $b / 15 + 16$

Oct 29-8:46 AM