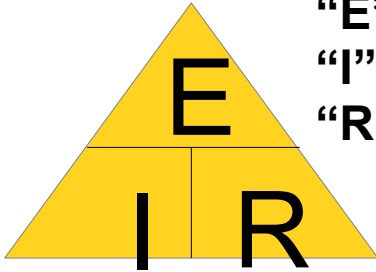


# FORMULAE SHEET

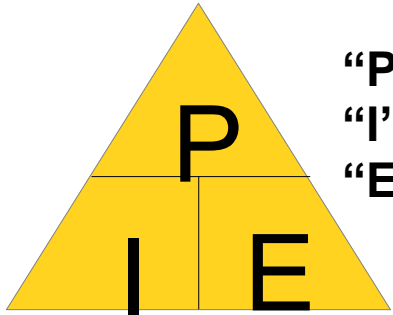
“E” IS VOLTAGE IN VOLTS  
 “I” IS CURRENT IN AMPS  
 “R” IS RESISTANCE IN OHMS



$E=IR$  or  $I=E/R$  or  $R=E/I$

$dB=10(\log(P_2/P_1))$

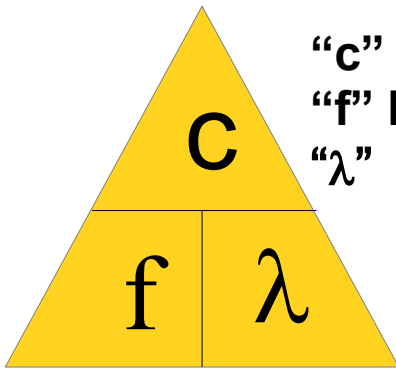
“P” IS POWER IN WATTS  
 “I” IS CURRENT IN AMPS  
 “E” IS EMF IN VOLTS



$P=IE$  or  $I=P/E$  or  $E=P/I$

dB value	multiple
3 dB	2 times
6 dB	4 times
10 dB	10 times
-3 dB	1/2 times
-6 dB	1/4 times
-10 dB	1/10 times

“c” IS THE SPEED OF LIGHT  
 “f” IS FREQUENCY IN HERTZ  
 “λ” IS THE WAVELENGTH



$\lambda=c/f$  or  $f=c/\lambda$

1/2 wave length in feet=468/frequency

Prefix	Numerical Value	Abbreviation	Exponential
giga-	1000000000	G	10 <sup>9</sup>
mega-	1000000	M	10 <sup>6</sup>
kilo-	1000	k	10 <sup>3</sup>
----	----	1	10 <sup>0</sup>
milli-	0.001	m	10 <sup>-3</sup>
micro-	0.000001	μ,u	10 <sup>-6</sup>
nano-	0.000000001	n	10 <sup>-9</sup>
Pico	.000000000001	p	10 <sup>-12</sup>