Name: $\qquad$ Date of Lab: $\qquad$

## Lab Manual Steps:

8) Draw an excellent copy of your scope screen here $\rightarrow$
9) Your voltage scale: $\qquad$ $V_{\mathrm{pp}}: \quad$ divs

$$
V_{\mathrm{pp}}: \xrightarrow[\mathrm{V}]{ }
$$

10) Your time scale: $\qquad$ $T: \quad$ divs $T$ : $\qquad$ ms

$$
f_{\text {calc }}: \quad \mathrm{Hz}
$$

$f_{\text {Function Generator: }}$ $\qquad$ Hz
11) "Cursors": $V_{\mathrm{pp}}$ : $\qquad$
12) "Cursors": $T$ : $\qquad$ ms
$f:$ $\qquad$
13) Your new voltage scale: $\qquad$ $V_{\mathrm{pp}}: \quad$ divs $V_{\mathrm{pp}}:$ $\qquad$
Your new time scale: $\qquad$ $T: \quad$ divs $T$ : $\qquad$
$f_{\text {calc }}$ : $\qquad$ Hz
$V_{\text {cursors: }}$ $\qquad$ V $f_{\text {cursors }}$ : $\qquad$
14) "Measure": $V_{\mathrm{pp}}$ : $\qquad$ V $T$ : $\qquad$
$\qquad$
18) For the same signal, "Measure" on the scope:
$V_{\mathrm{RMS}}$ : $\qquad$ Multimeter, set to ACV: $\quad V_{\mathrm{RMS}}: \quad \mathrm{V} \quad f: \underset{\mathrm{Hz}}{ }$
Convert from multimeter $V_{\mathrm{RMS}}: \quad V_{\mathrm{pp}}: \quad \mathrm{V}$
19) $f_{\min } \approx$ $\qquad$ Hz , and was limited by which device: (Scope) (Function Generator) $f_{\max } \approx \ldots \quad \mathrm{Hz}$, and was limited by which device: (Scope) (Function Generator)
20) $\quad V_{\mathrm{PP}-\min } \approx$ $\qquad$ mV , and was limited by which device: (Scope) (Function Generator)
$V_{\text {PP-max }} \approx$ $\qquad$ mV , and was limited by which device:
(Scope) (Function Generator)
21) Purpose of "duty cycle: knob: $\qquad$
$\qquad$
22) Using BNC: $V_{\mathrm{pp}}: \quad \mathrm{V} \quad f:$ $\qquad$ $\mathrm{Hz} \quad t_{\text {upper }}$ : $\qquad$ ms $t_{\text {lower }}$ : $\qquad$
23) Using Banana wires: $T_{\text {Bounce }}$ : $\qquad$ ms
25) Disconnected banana wires: $f$ : $\qquad$ Hz

What is the "real life" application that created this frequency? $\qquad$
(more on other side...)

Lab Practical:
First Mystery signal:

$$
\begin{aligned}
& \text { Name: }(\mathrm{A})(\mathrm{B})(\mathrm{C})(\mathrm{D}) \\
& f= \\
& V_{\mathrm{pp}}= \\
& \text { Shape }=\underline{(\text { sinusoid })(\text { triangle })(\text { square })} \\
& \text { Duty Cycle }= \\
& \mathrm{DC}_{\text {offset }}=
\end{aligned}
$$

Second Mystery signal:

$$
\begin{aligned}
& \text { Name: }(\mathrm{A})(\mathrm{B})(\mathrm{C})(\mathrm{D}) \\
& f= \\
& V_{\mathrm{pp}}= \\
& \text { Shape }=\underline{(\text { sinusoid })(\text { triangle })(\text { square })} \\
& \text { Duty Cycle }= \\
& \mathrm{DC}_{\text {offset }}=
\end{aligned}
$$

