Display of periodic signals on the oscilloscope

Student Group

First Name	Surname	Matrikel Nr.

Table of Contents

Display of periodic signals on the oscilloscope

Build the following circuit in figure 1 with the function generator and the oscilloscope.

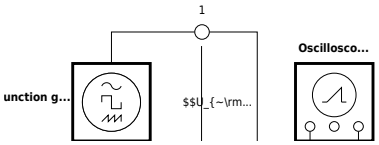

Fig. 1: Periodic signals on the oscilloscope

Set the signals listed in table 1 on the function generator and draw the corresponding oscilloscope screen images. The signal display on the oscilloscope should optimally fill the screen

Signal shape	Frequency	Amplitude
Sine	1.0 kHz	1.8 V
Triangle	4.0 kHz	3.0 V
Square (unipo...	2.0 kHz	5.0 V
Square (bipol...	5.0 kHz	2.0 V
Sine...	2.5 kHz	4.0 V...

Text is not SVG - cannot display

Tab. 1: Signals

Also document the settings of the used channels, the time base, and the GND line on the left side of the screen drawings.

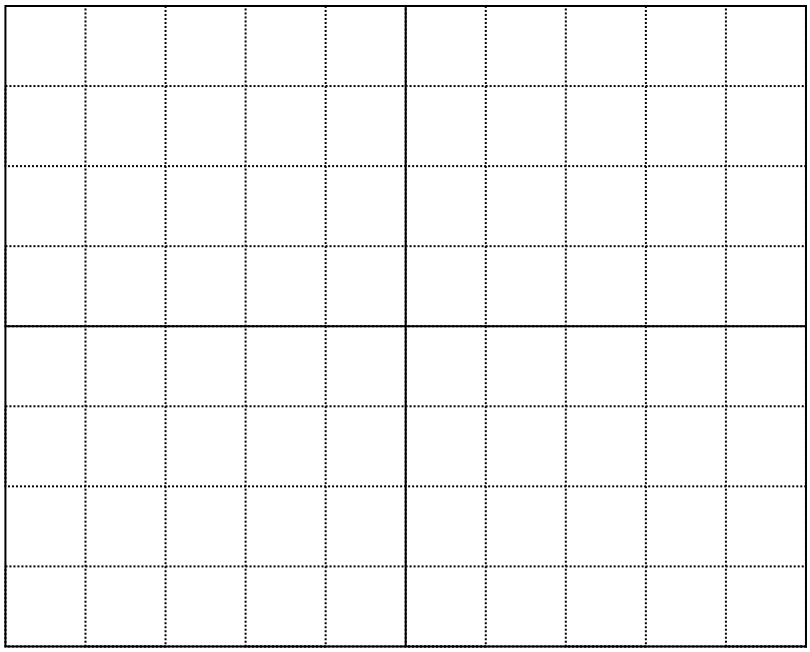

Fig. 2: Sine, f = 1 kHz, U = 1.8V

Channel 1: $ \frac{V}{\rm DIV} = $

Time basis: $ \frac{T}{\rm DIV} = $

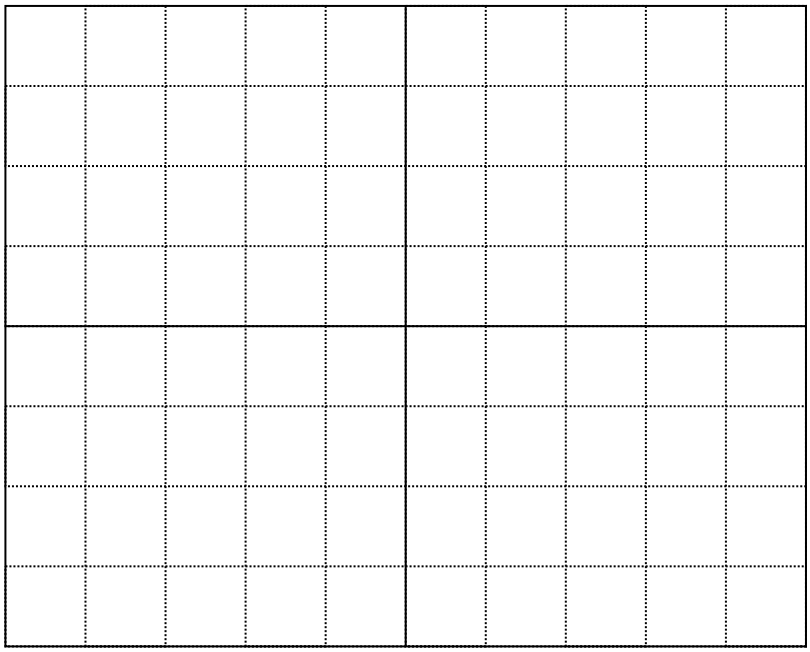

Fig. 3: Triangle, f = 4 kHz, U = 3 V

Channel 1: $ \frac{V}{\rm DIV} = $

Time basis: $ \frac{T}{\rm DIV} = $

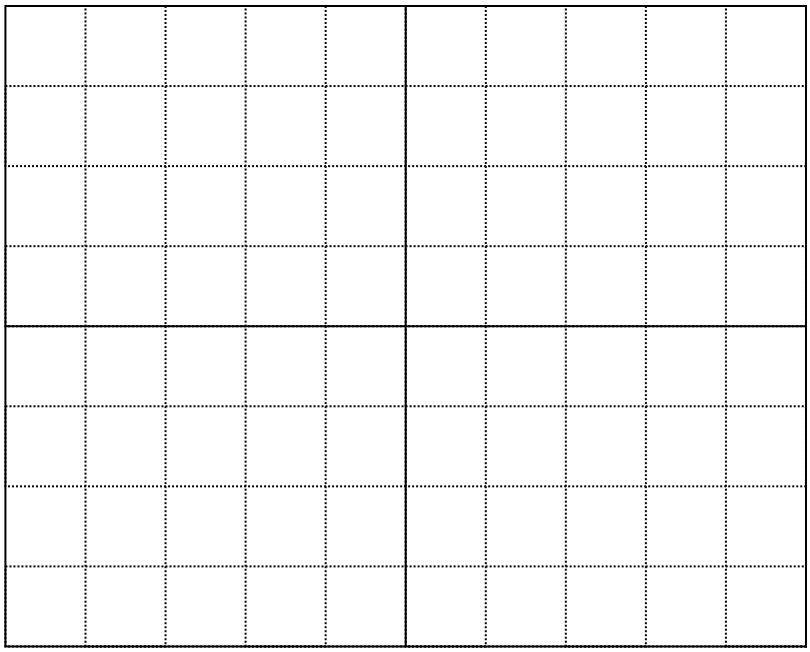

Fig. 4: Rectangle, unipolar, f = 2 kHz, U = 5 V

Channel 1: $ \frac{V}{\rm DIV} = $

Time basis: $ \frac{T}{\rm DIV} = $

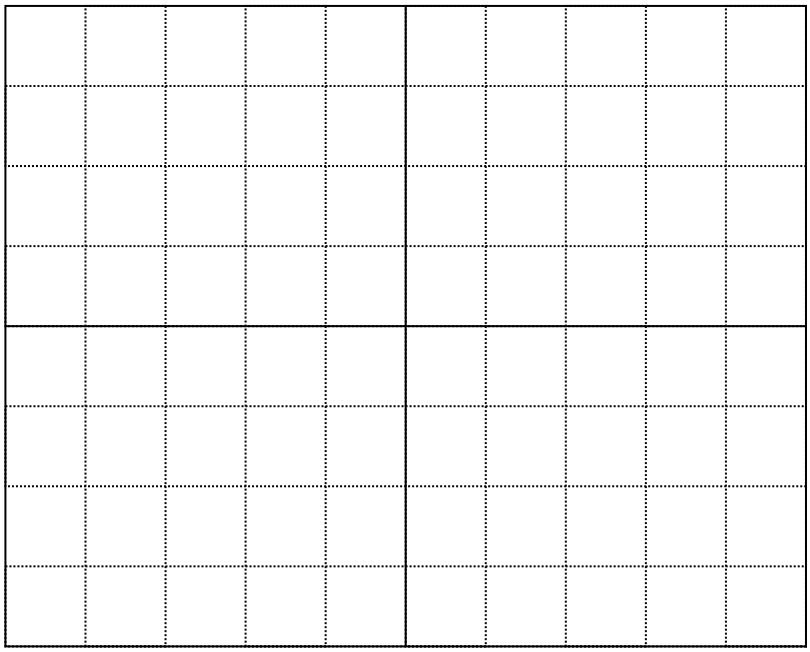

Fig. 5: Rectangle, bipolar, f = 5 kHz, U = 2 V

Channel 1: $ \frac{V}{\rm DIV} = $

Time basis: $ \frac{T}{\rm DIV} = $

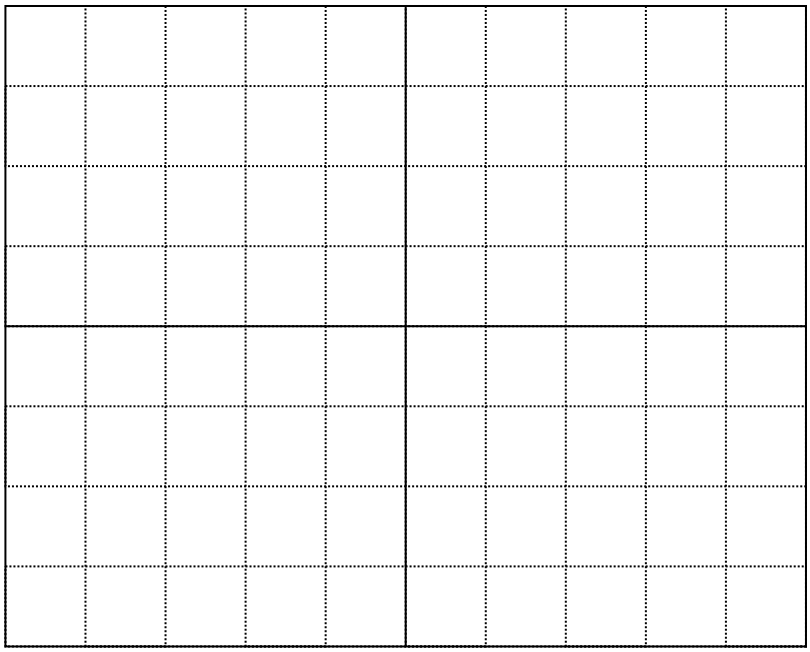

Fig. 6: Sine DC Offset, f = 2.5 kHz, U = 4 V, UDC = 2 V

Channel 1: $ \frac{V}{\rm DIV} = $

Time basis: $ \frac{T}{\rm DIV} = $