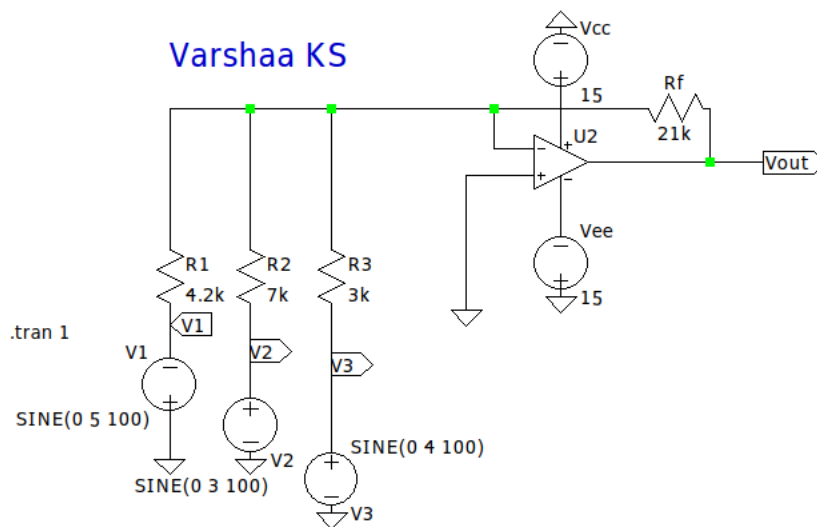


a) Attach the screenshot of the LT-spice schematic diagram of the designed circuit?

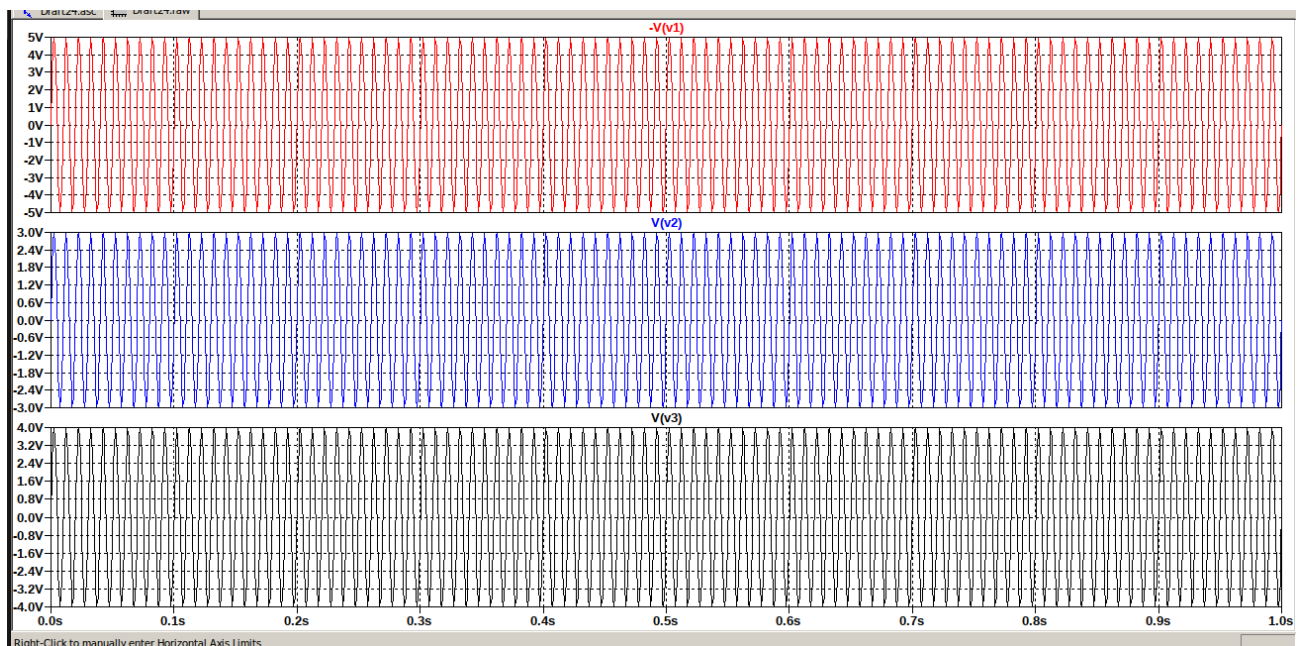


b) What are the gains of an inverting amplifier and non-inverting amplifier with source resistance R1 and feedback resistance Rf?

Gain of an inverting amplifier =  $-R_f/R_1$

Gain of a non-inverting amplifier =  $1 + R_f/R_1$

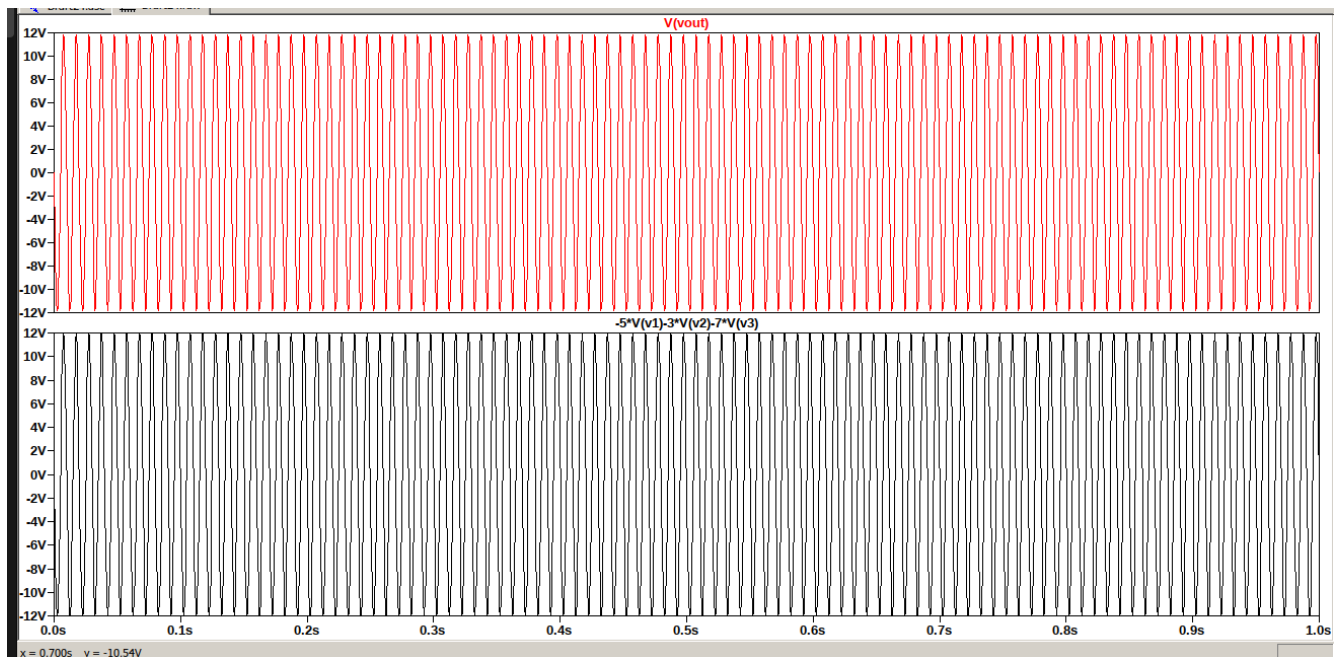
c) Attach the screenshot of plot containing V1, V2 and V3 by performing a transient simulation?



d) The circuit designed is one of the types of amplifiers? Name it?

It is adder circuit made by using a inverting amplifier

**e) Attach the screenshot of plot containing (5V1-3V2-7V3) and V(out) in different pane by performing a transient simulation?**



**Note: In the expression V1 is written with a negative because, in the diagram the voltage is connected in the opposite direction.**