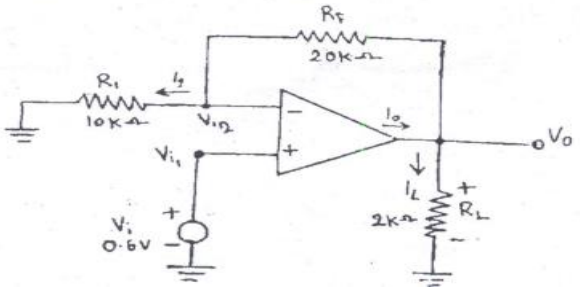
1.

The output voltage of a certain op-amp circuit changes by 20 V in 4 μs. What is its slew rate?

2.

For the given non-inverting amplifier shown in figure below, determine (i) A_v; (ii) V_0; (iii) I_L and (iv) I_0.

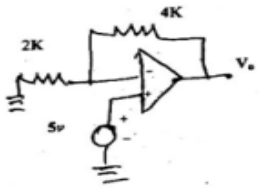


3.An operational amplifier has a slew rate of 4v/μs .Determine the maximum frequency of operation to produce distortion less output swing of 12V

4.A differential amplifier has a differential voltage gain of 2000 and a common mode gain of 0.2.Determine the CMRR in dB

5.

For the op-amp shown in figure determine the voltage gain



6.Calculate the time taken by the output to swing from +14v to -14v for a 741C op-amp having a slew rate of 0.5V/μs?

Slew rate = dv/dt
=> Time taken = 14-(-14)/ 0.5V/μs = 28v/0.5V/μs = 56μs.

7. Consider a square wave having a peak to peak amplitude of 275mv and it is amplified to a peak to peak amplitude of 4v, with rise time of 5.2μs. Calculate the slew rate?

From the definition of rise time, the change in the output voltage is 5.2μs
△v= (90%-10%)×4v= (0.9-0.1)×4v =3.2v.
Therefore, slew rate = 3.2v/5.2μs =0.615v/μs.