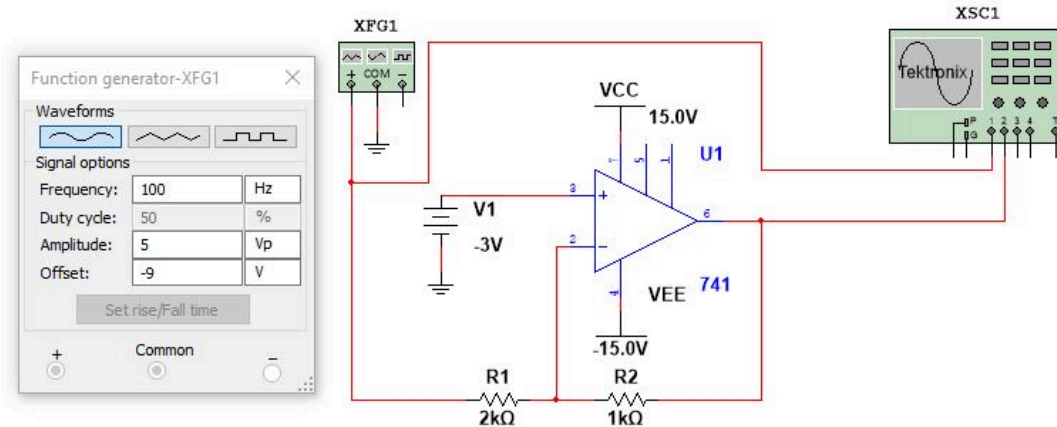In the last example, a DC offset was added at the inverting terminal. The same can be done with the non-inverting terminal, as seen in the following example.

Using Multisim, build the following circuit and analyze it as follows.

The input signal from the function generator is all negative, so you may have to adjust the scope settings to see it. Try to leave the ground marker (little yellow arrow) in the middle of the screen.

1. What is the amplitude of the output signal?   5 V_{p-p} or   2.5 V_p

2. What is the DC component of the output signal?   0 V_{DC}

Again, you should have discovered that the huge DC offset in the original signal has been effectively eliminated by this circuit. Use superposition to determine the following characteristics of this circuit:

3. Gain seen by the DC input, V_1:   1.5

4. DC offset in the output from V_1:   -4.5

5. Gain seen by the function generator input: -0.5

6. Transfer function: V_{out} =   -0.5   x V_{in} -   4.5

7. By entering the DC component of V_{in} into your transfer function, you should be able to prove that the output offset is what you

   observed in Multisim: 0 V_{DC}