

EE329 - Test 2

Name _____

Design an amplifier to the following specifications:

Gain = 40db +/- 1 db (100) non-inverting unloaded

Z out less than 12k

Z in more than 10k

Output range +/- 5 volts into 10k load

Power supply + and - 15 volts

Frequency response within 3 db at 100 Hz.

Components: You may use both NPN and PNP transistors.

Transistor parameters: $\beta \geq 50$, $V_A = \text{infinity}$

You may use as many components as you need, but 10 points of your score is for the quality of your design. Using too many components will result in a lower score. This problem can be done with 2 transistors, 6 resistors, and 2 capacitors.