

(a) Using an op amp which is powered by a single supply and has output saturation levels at 0 V and 6 V, design an *inverting* comparator which has its low and high switching levels at 1.5 V and 2.5 V. This requires specifying the feedback resistors and the reference voltage needed.

(b) Using an op amp which is powered by a dual supplies and has saturation levels at ± 5 V, design a *non-inverting* comparator which has its low and high switching levels at -1 V and +2 V. This requires specifying the feedback resistors and the reference voltage needed.

For both of these designs, show your calculations – you cannot use the spreadsheet to do these problem.