Consider the given circuit with $\beta = \beta_0 = 100$, $V_{CC}$ is 10V, $R_1=10K$, $R_2=R_3=5K$ and $-V_{CC}$ ($V_{EE}$) is -20.7V.

a) (2) What is the voltage gain of the circuit if $V_1=V_2$?

b) (2) What is the voltage gain of the circuit if $V_1=-V_2$?

c) (2) How does the CMRR of this circuit change if $R_2$ and $R_3$ are halved?

d) (2) How does the CMRR of this circuit change if $\beta_0$ is doubled?

e) (2) What is the CMRR if $R_1$ is replaced by a transistor current source providing the same bias current?