

REŠENJA

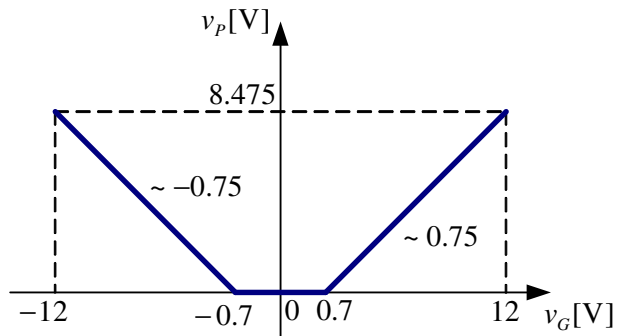
1. a) $v_I = -4v_G$.

b) $v_I = -\frac{4}{3}(v_G + V_R)$.

3. Za $-12\text{V} \leq v_G \leq -0.7\text{V}$: D_1 -ON, D_2 -OFF, $v_p[\text{V}] = -0.75v_G[\text{V}] - 0.525$.

Za $-0.7\text{V} \leq v_G \leq 0.7\text{V}$: D_1 -OFF, D_2 -OFF, $v_p[\text{V}] = 0 = \text{const}$.

Za $0.7\text{V} \leq v_G \leq 12\text{V}$: D_1 -OFF, D_2 -ON, $v_p[\text{V}] = 0.75v_G[\text{V}] - 0.525$.



5. a) $I_B \approx 8.43\mu\text{A}$, $I_C \approx 843\mu\text{A}$, $I_E \approx 851.4\mu\text{A}$, $V_B = -0.396\text{V}$, $V_E = -0.996\text{V}$, $V_C = 1.038\text{V}$.

b) $a = v_p / v_g = -107.8$.

c) $R_{ul} = R_B \parallel r_\pi = 2.79\text{k}\Omega$, $R_{izl} = R_C = 4.7\text{k}\Omega$.