First in-class exercise of Topic 4

• The input signal-to-noise ratio $S_i/N_i = 30$ dB. What is the output signal-to-noise ratio S_o/N_o in dB?

Room temperature $T_0 = 290$ K S_i : input signal power N_i : input noise power $T_A = 150$ K: input $G_e = 20$ dB gain $F_e = 4.77$ dB noise figure