

Special Problem II.B-3

An amplifier has at its input an SNR of 10 dB.

The noise at the amplifier input has a temperature of 290 degrees K

The noise at the amplifier output has a temperature of 5800 degrees K.

The amplifier has at its output an SNR of 5 dB.

- a) Determine the gain and noise figure of this amplifier.
- b) Determine the temperature of the output noise if the temperature of the noise at the input is increased to 600 degrees K.