

### Special Problem II.B-8

An amplifier is followed by a **13 dB attenuator**, as shown below.

The amplifier has a **gain of 10 dB**, and a **noise figure of 3 dB**.

a) Determine the **system noise figure** (i.e., the noise figure of the amplifier/attenuator **combination**).

b) Determine the **spectral power density** of the noise at the **output** of the **attenuator**.

