Special Problem II.A-26

Say you require a filter with a **center frequency** f_0 = 1.0 GHz, and **bandwidth** Δf = 100 MHz.

You need the attenuation of the filter to be **40 dB** at f =1.1 GHz

1. Determine the filter **order** required for a:

    a) Butterworth Filter
    b) Chebychev with 0.5 dB passband ripple.
    c) Chebychev with 3.0 dB passband ripple.

2. Using the results in part 1, determine the filter **attenuation** at f =930 MHz for **each** of the three filter designs.