

### Special Problem 4.B-2

A receiver uses **high-side tuning**, and an Intermediate Frequency filter centered at **100 MHz**.

The **local oscillator** of this receiver is tuned to **1 GHz**.

Determine:

- a) the **frequency** of the input signal to which the receiver is tuned.
  
- b) the **frequencies** of **all** other RF **input** signals (up to and including 3<sup>rd</sup> order products) that could also pass through this Intermediate Frequency filter.