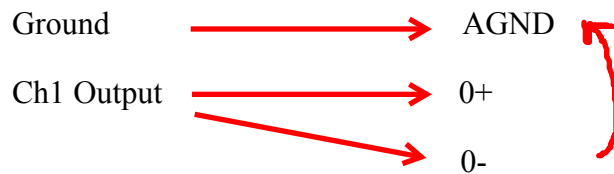3. If the myDAQ AI0 is used as an oscilloscope to measure the Ch1 output (non-inverting) of a function generator, how would you connect these two devices? To answer this question, please refer to the *differential* input discussion in the first paragraph of the MyDAQ Oscilloscope instructions below. Draw lines to connect them.

F.G. Ch1   myDAQ Analog Input Channel 0

Ground   ⟶   AGND

Ch1 Output   ⟹   0+

                                              0-

4. For a square wave and a sinusoidal wave generated at the same frequency, which waveform requires a higher frequency response from the measuring system? Briefly explain why.

A square wave and a sinusoidal wave will both have the same period with the same setting, yet they differ in terms of the waveform. Unlike sinusoidal waves, square waves contain sharp rises and flat tops. Due to these characteristics, a higher frequency response is necessary to create the shape of the square wave.