Problem 1. (2 points.) Calculate the largest and smallest resistances that you can obtain by connecting 3 resistors with $R_1 = 10\Omega$, $R_2 = 20\Omega$, and $R_3 = 30\Omega$.

Problem 2. (2 points.) Calculate the equivalent capacitance of the circuit below. How would you rearrange the same capacitors to get higher equivalent capacitance?

Problem 2. (1 points.) Let’s say you are measuring voltage across a circuit element with a voltmeter. The resistance of the voltmeter

A) needs to be much lower than that of circuit element.

B) does not matter because we’re not interested in measuring voltage of a voltmeter.

C) needs to be much higher than that of circuit element.

D) must be zero because otherwise all the current would pass through it.