IMA and Levers --- Let's "FRE" – ed up

Remember that a "torque arm," is from the pivot to the point of force application. Draw and label (with forces and distance) each trial.

1) Set up a 1st class lever with the effort at one end and the resistance at the other.

Trial #1: Place the fulcrum about 1/3 away from the resistance.

D_e d_r IMA F_r F_e(actual)

Trial #2: Place the fulcrum about 1/3 away from the effort.

D_e d_r IMA F_r F_e(actual)

2) Set up a 2nd class lever with the fulcrum at one end and the effort at the other.

Trial #3: Place the resistance about 1/4 away from the fulcrum.

D_e d_r IMA F_r F_e(actual)

Trial #4: Place the resistance about 3/4 away from the fulcrum.

D_e d_r IMA F_r F_e(actual)

3) Set up a 3rd class lever with the fulcrum at one end and the resistance at the other.

Trial #3: Place the effort about 1/3 away from the fulcrum.

D_e	d_r	IMA	F_r	F_e(actual)

Trial #4: Place the resistance about 1/2 away from the fulcrum.

D_e	d_r	IMA	F_r	F_e(actual)