

Practicing Calculating Net E, F, V, and PE. Example 2

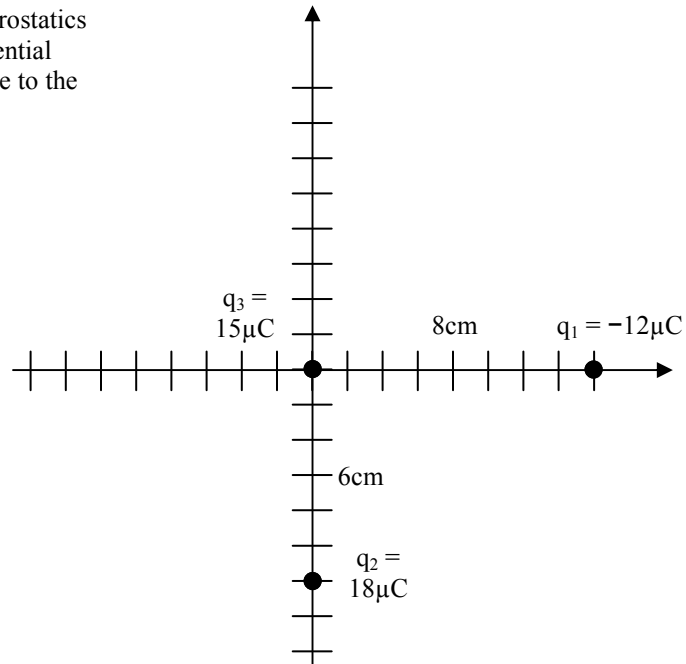
Instructions:

Page 1 the example;

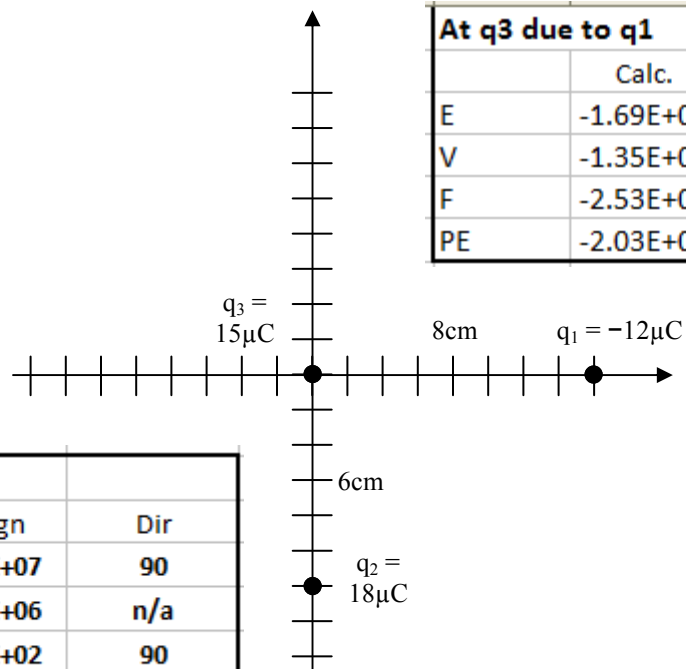
Page 2 individual calculated quantities, but not the net quantities, so you can check this intermediate stage;

Page 3 the net quantities.

Example 3) Find the net electrostatics field, force, potential, and potential energy on the $15\mu\text{C}$ charge due to the other two charges.



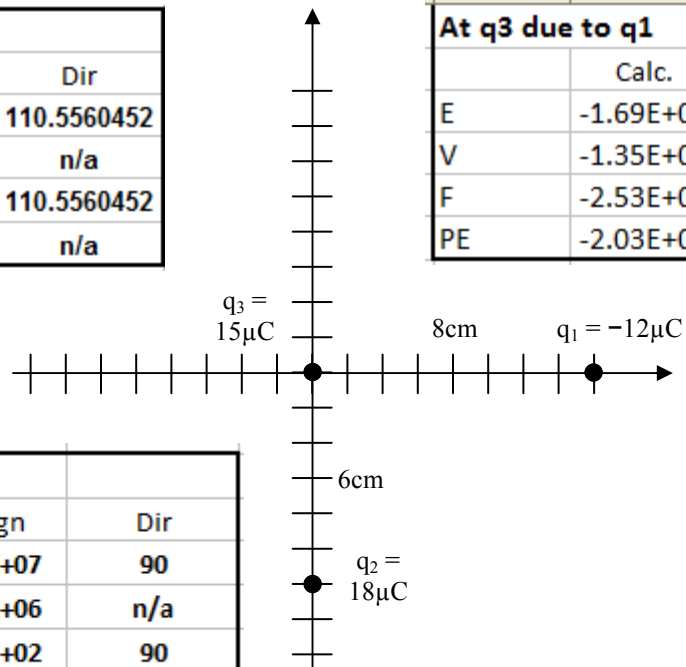
At q3 due to q1			
	Calc.	magn	Dir
E	-1.69E+07	1.69E+07	180
V	-1.35E+06	1.35E+06	n/a
F	-2.53E+02	2.53E+02	180
PE	-2.03E+01	2.03E+01	n/a



At q3 due to q2			
	Calc.	magn	Dir
E	4.50E+07	4.50E+07	90
V	2.70E+06	2.70E+06	n/a
F	6.75E+02	6.75E+02	90
PE	4.05E+01	4.05E+01	n/a

Net		
	magn	Dir
E	4.81E+07	110.5560452
V	1.35E+06	n/a
F	7.21E+02	110.5560452
PE	2.03E+01	n/a

At q3 due to q1			
	Calc.	magn	Dir
E	-1.69E+07	1.69E+07	180
V	-1.35E+06	-1.35E+06	n/a
F	-2.53E+02	2.53E+02	180
PE	-2.03E+01	-2.03E+01	n/a



At q3 due to q2			
	Calc.	magn	Dir
E	4.50E+07	4.50E+07	90
V	2.70E+06	2.70E+06	n/a
F	6.75E+02	6.75E+02	90
PE	4.05E+01	4.05E+01	n/a