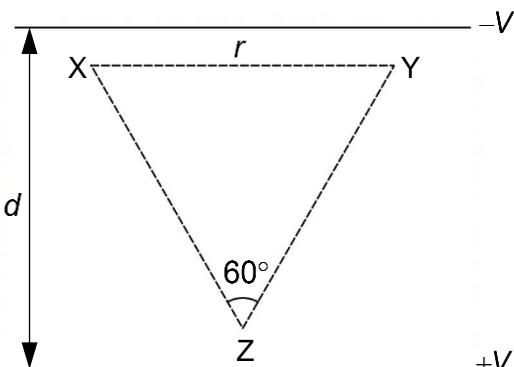


- 20** Two large horizontal metal plates are distance d apart. The upper and lower plates are at potentials $-V$ and $+V$ respectively.

X, Y and Z are points between the metal plates such that they form an equilateral triangle with sides of length r . Side XY is parallel to the plates.



Which of the following shows the work done against the electric force in moving an electron at constant speed from X to Y, Y to Z and Z to X?

	X to Y	Y to Z	Z to X
A	$+\left(\frac{2V}{d}\right)er$	$+\left(\frac{2V}{d}\right)er \cos 60^\circ$	$-\left(\frac{2V}{d}\right)er \cos 60^\circ$
B	0	$-\left(\frac{2V}{d}\right)er \sin 60^\circ$	$+\left(\frac{2V}{d}\right)er \sin 60^\circ$
C	0	$+\left(\frac{2V}{d}\right)er \sin 60^\circ$	$-\left(\frac{2V}{d}\right)er \sin 60^\circ$
D	0	$-\left(\frac{2V}{d}\right)er \cos 60^\circ$	$+\left(\frac{2V}{d}\right)er \cos 60^\circ$