

- 7 When a horizontal force F is applied to a trolley over a smooth horizontal surface of distance x , its kinetic energy changes from 2 J to 6 J.

If a force $2F$ is applied to the trolley over a distance of $2x$, what will be the final kinetic energy of it? Assume the original kinetic energy of the trolley is 2 J.

A 12 J

B 16 J

C 18 J

D 24 J