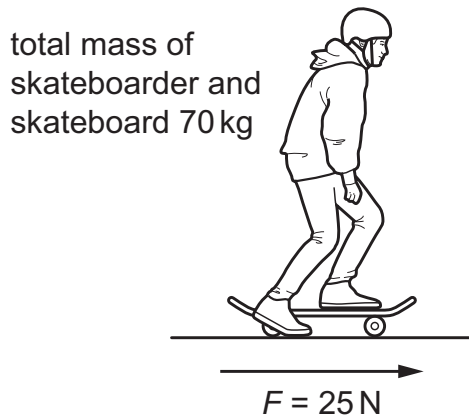


- 16 A skateboarder and her skateboard have a total mass of 70 kg. She pushes on the ground with her foot to create a forward force  $F$  of 25 N on herself and the skateboard, as shown in the diagram.



The skateboarder and skateboard travel forwards a distance of 0.50 m before the skateboarder lifts her foot from the ground.

What is the work done by  $F$  on the skateboarder and skateboard?

- A** 13 J                      **B** 50 J                      **C** 340 J                      **D** 360 J