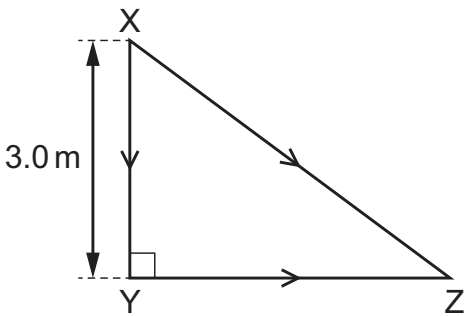
18 The points X, Y and Z are on a rough, horizontal surface.



A box P is pushed across the surface from X to Y and then from Y to Z.

The distance from X to Y is 3.0 m. The work done against the frictional force in moving the box from X to Y is 150 J.

The work done against the frictional force in moving the box from Y to Z is 200 J.

An identical box Q is pushed in a straight line from X to Z.

The magnitude of the frictional force between the boxes and the surface is constant.

How much extra work is done against the frictional force in moving P than Q?

A 100 J **B** 250 J **C** 350 J **D** 600 J