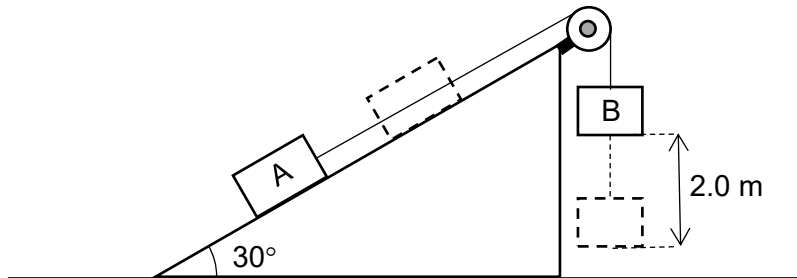**7** Blocks A and B, of masses 4.0 kg and 6.0 kg respectively, are connected by a light cord passing over a light, frictionless pulley. Block A is held at rest on a rough slope inclined at 30° to the horizontal as shown.

When A and B are released, block A experiences a constant frictional force of 3.0 N.

What is the total kinetic energy of A and B when B has travelled 2.0 m downwards?

A 39 J   **B** 72 J   **C** 78 J   **D** 118 J