A block of mass 12 kg is placed on a plane which is inclined at an angle of 24° to the horizontal. A light string, making an angle of 36° above a line of greatest slope, is attached to the block. The tension in the string is 65 N (see diagram). The coefficient of friction between the block and plane is $\mu$. The block is in limiting equilibrium and is on the point of sliding up the plane.

Find $\mu$. [6]

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