

## STEP II, 2024, Q10 EC

### Question 10

This question received the fewest attempts, although a good proportion of the attempts that were made were successful. Many candidates drew clear diagrams in their attempts at this question.

Part (i) was done fairly well, with most candidates resolving forces successfully. However, many candidates were not able to justify sufficiently well the situation in equilibrium as opposed to limiting equilibrium.

In part (ii) many candidates struggled to know how to deal with the force that acts on the prism and thought instead that it would be acting on the particle.

Those candidates who attempted part (iii) generally did well and many realised how to get both sides of the required inequality and were able to follow through the required manipulation.



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