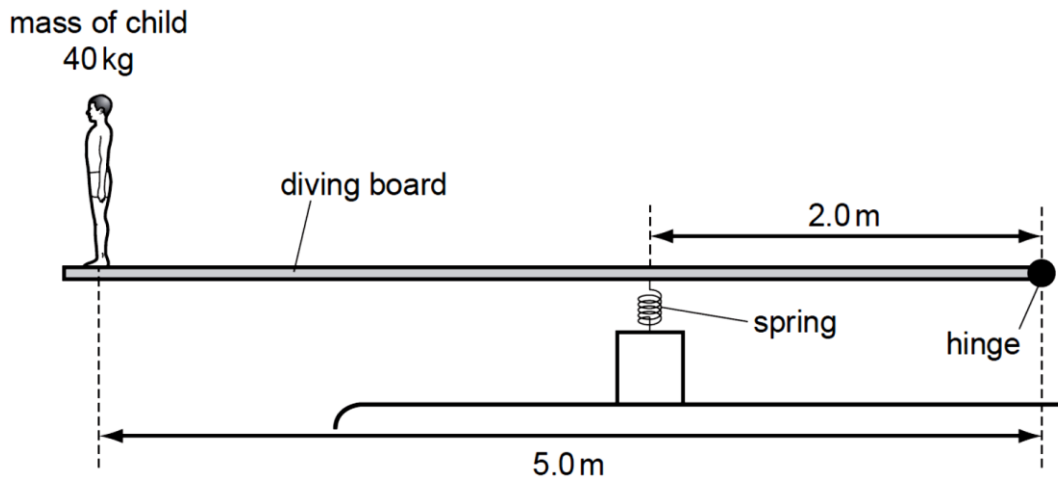7 A diving board of length 5.0 m is hinged at one end and supported 2.0 m from this end by a spring of spring constant 10 kN m^{-1}. A child of mass 40 kg stands at the far end of the board.

mass of child
40 kg

diving board

2.0 m

spring

hinge

5.0 m

What is the compression of the spring caused by the child standing on the end of the board?

A 1.0 cm   B 1.6 cm   C 9.8 cm   D 16 cm