

6 A spring hangs from the ceiling of a stationary train and a 1.2 kg mass is hung on the spring.

The mass causes an extension of 2.4 cm on the spring when it is hung vertically.

What is the extension of the spring when the train accelerates horizontally at a rate of 5.0 m s^{-2} ?

A 1.2 cm

B 2.6 cm

C 2.7 cm

D 3.6 cm

7 A spindle is attached at one end to the centre of a lever 1.20 m long and at its other end to the centre