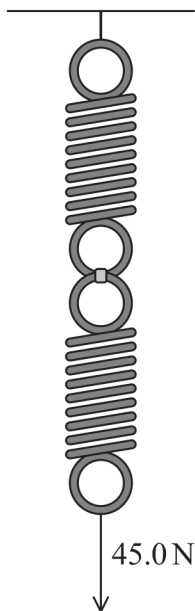10 Two identical springs are arranged in series. A force of 45.0 N is applied to the springs, as shown.

45.0 N

The springs extend a total distance of 15 mm.

Which of the following expressions gives the stiffness of each spring in N mm^{-1}?

☒ A $\dfrac{15}{2 \times 45}$

☒ B $\dfrac{45}{2 \times 15}$

☒ C $\dfrac{2 \times 15}{45}$

☒ D $\dfrac{2 \times 45}{15}$

(Total for Question 10 = 1 mark)