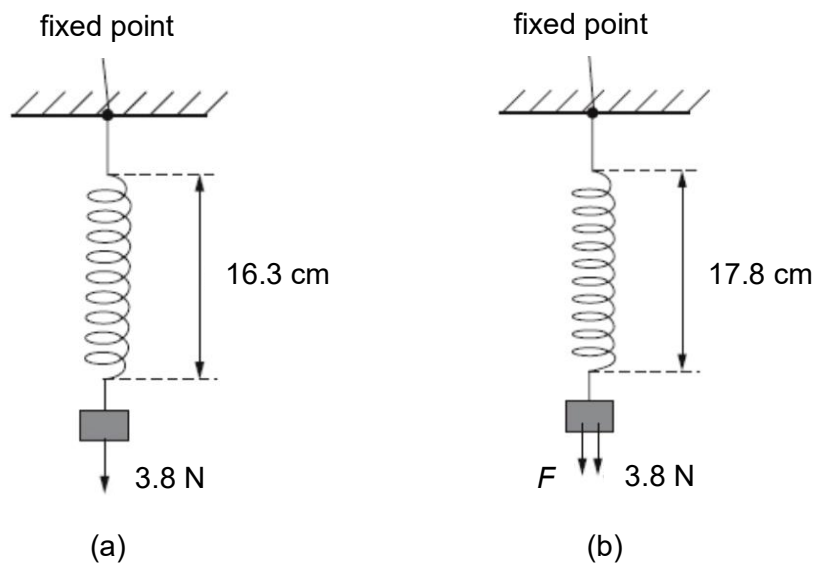


- 7 A mass of weight  $3.8\text{ N}$  is suspended on a spring of unstretched length  $14.2\text{ cm}$  and spring constant  $181\text{ N m}^{-1}$ . The length of the spring is  $16.3\text{ cm}$  as shown in (a).

An additional force  $F$  then extends the spring so that its length becomes  $17.8\text{ cm}$  as shown in (b).



What is the work done by  $F$ ?

- |                           |                           |
|---------------------------|---------------------------|
| <b>A</b> $0.057\text{ J}$ | <b>B</b> $0.020\text{ J}$ |
| <b>C</b> $0.077\text{ J}$ | <b>D</b> $0.13\text{ J}$  |