

# Springs

Bands 1, 2, 3, 4, 5 · 10 questions · Free sample

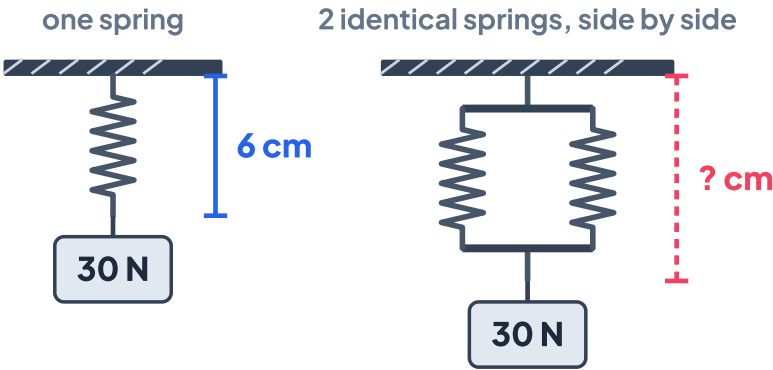
Name \_\_\_\_\_ Date \_\_\_\_\_ Score \_\_\_\_\_ /10

Each picture asks its own question. A spring stretches in proportion to its load. Springs side by side share the load, so their stiffnesses add; springs one below another each carry all the weight below them, so their stretches add. Circle the letter of your answer.

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1 Band 1

How far do the 2 identical springs stretch?

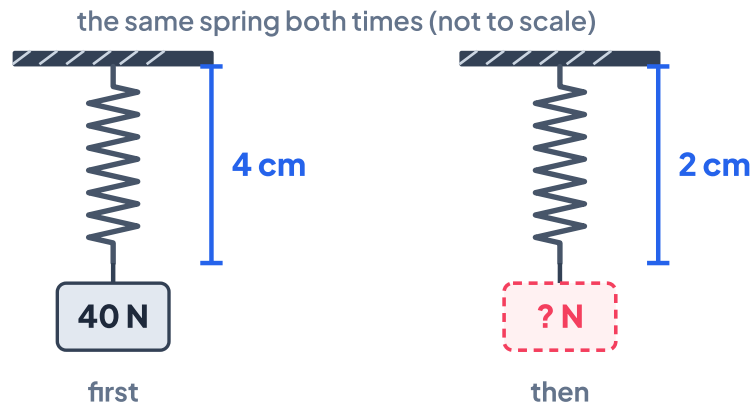


- ☐ A 1 cm
- ☐ B 3 cm
- ☐ C 6 cm
- ☐ D 12 cm

2

Band 1

Which weight stretches the same spring 2 cm?



(A)

2 N

(B)

10 N

(C)

20 N

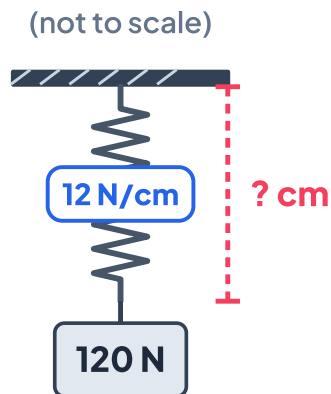
(D)

38 N

3

Band 2

How far does the weight stretch the spring?



(A)

5 cm

(B)

8 cm

(C)

9 cm

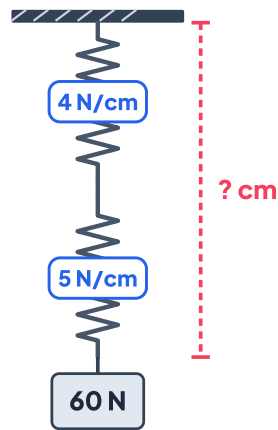
(D)

10 cm

4

Band 2

How far do the springs stretch?



(A)

15 cm

(B)

27 cm

(C)

54 cm

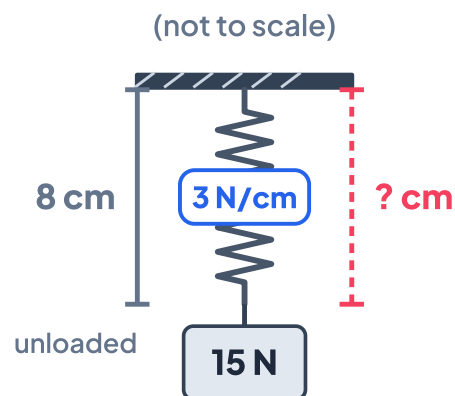
(D)

81 cm

5

Band 3

How long is the spring with the weight on?



(A)

5 cm

(B)

9 cm

(C)

12 cm

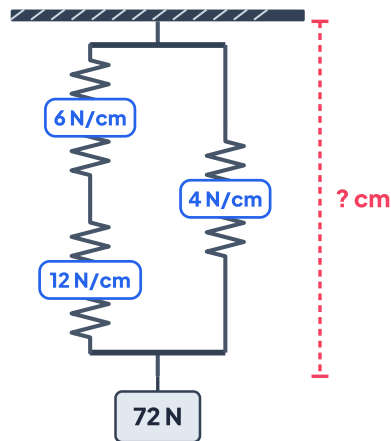
(D)

13 cm

6

Band 3

How far do the springs stretch?



(A) 3 cm

(B) 9 cm

(C) 22 cm

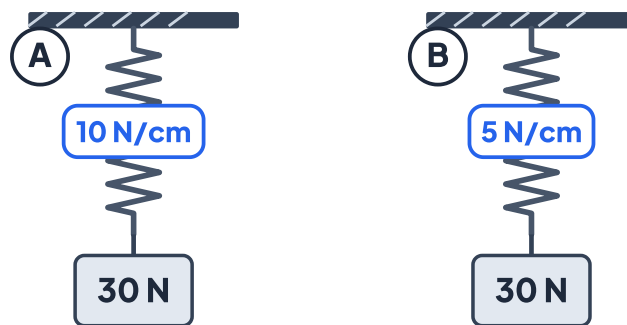
(D) 36 cm

7

Band 4

The same weight hangs on each. How much further do softer spring stretch?

(not to scale)



(A) 1 cm

(B) 2 cm

(C) 3 cm

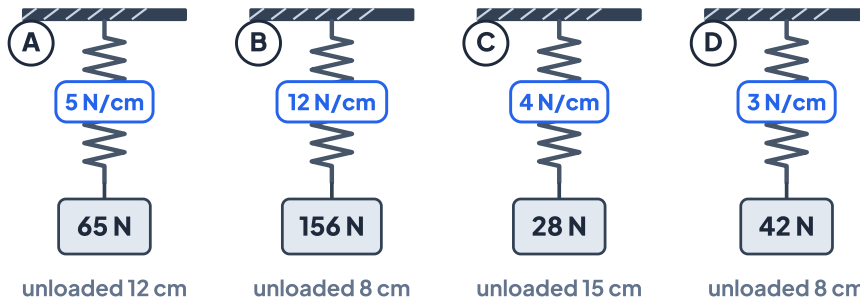
(D) 6 cm

8

Band 4

Which spring is the longest with its weight on?

(not to scale)



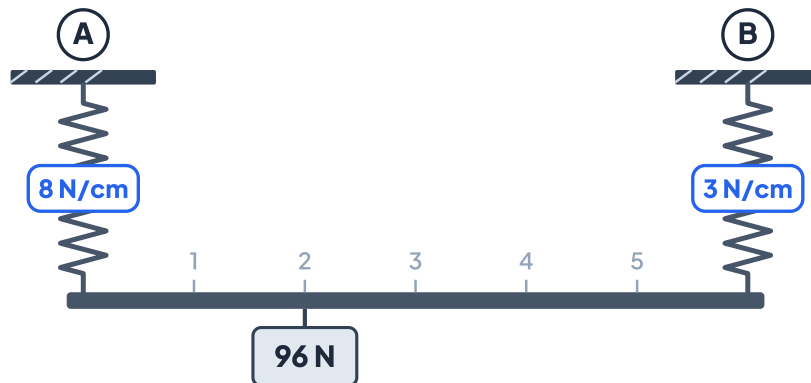
- ☐ A    **A**   
 ☐ B    **B**   
 ☐ C    **C**   
 ☐ D    **D**

9

Band 5

How far does spring A stretch?

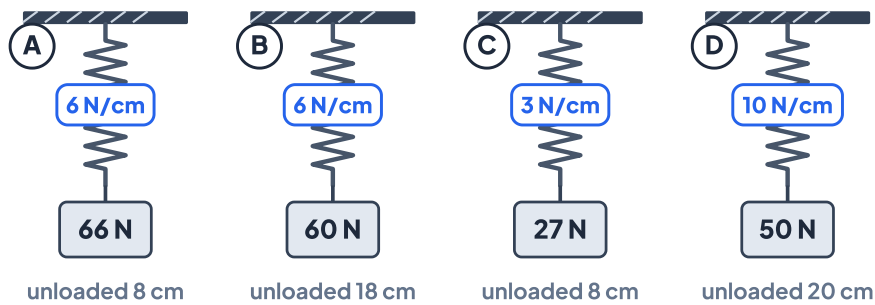
(the beam is light; places counted from the left end; not to scale)



- ☐ A    **8 cm**   
 ☐ B    **12 cm**   
 ☐ C    **16 cm**   
 ☐ D    **24 cm**

Which spring is the longest with its weight on?

(not to scale)



- ☐ A    ☐ B    ☐ C    ☐ D

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