

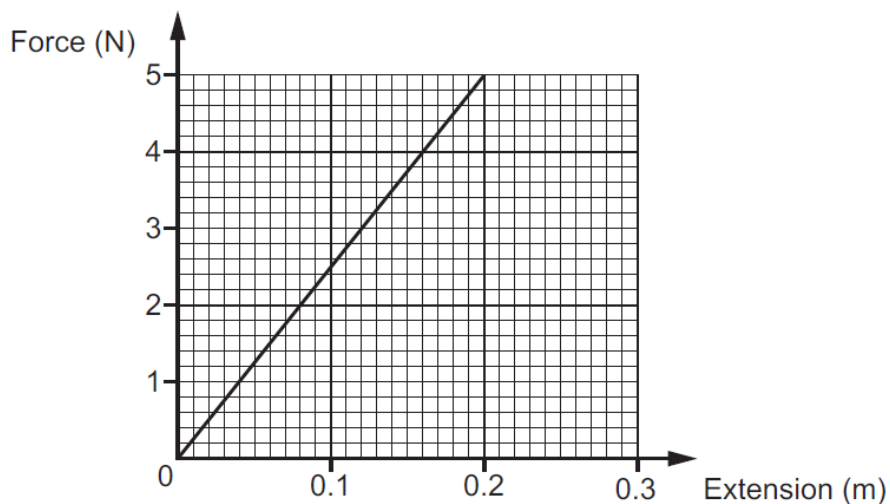
GCSE Physics A (Gateway)
J249/03 Physics A P1-P4 and P9 (Higher Tier)

Question Set 11

1

A student investigates how a spring stretches when a force is added.

Look at a graph of his results.



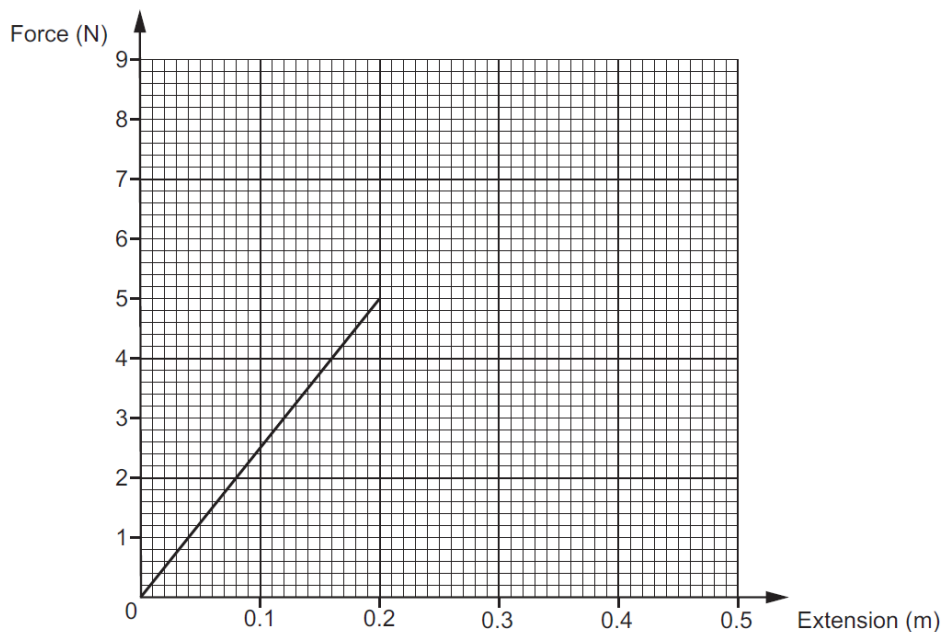
(a) Calculate the spring constant of the spring.

Spring constant = N/m

[3]

The student continues to load the spring until it passes its elastic limit.

Complete the force-extension graph and label the elastic limit.



[2]

- (c) The student puts a small load on the spring. It is in equilibrium.
Draw and label a free body force diagram for the load at the end of the spring.

[3]

Total Marks for Question Set 11: 8

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