

GCSE Physics A (Gateway)

J249/01 Physics A P1-P4 and P9 (Foundation Tier)

Question Set 11

1 A student has a spring, a ruler and a 2.0 N weight.

(a) Describe how the student can use this equipment to determine the **spring constant** of the spring.

[3]

(b) The 2.0 N weight has a surface area of 0.005 m².

Calculate the **pressure** when it is placed on a surface.

Use the equation: pressure = force normal to a surface ÷ area of that surface

Pressure = Pa

[2]

(c) Describe how to change the shape of an object.

Use the idea of forces in your answer.

[2]

(d) Describe the differences between elastic and plastic deformation.

[2]

Total Marks for Question Set 11: 11

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