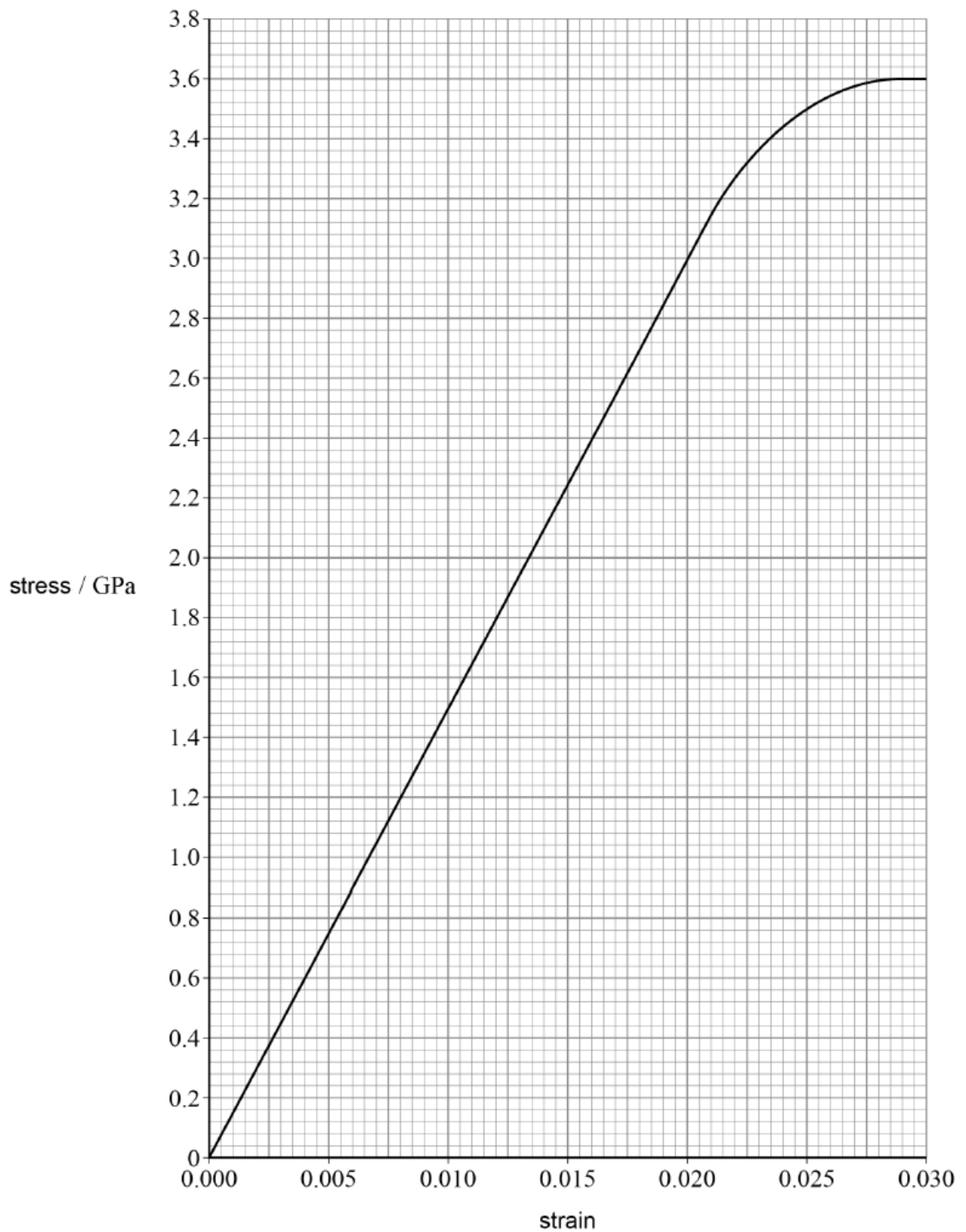


Materials – AS Physics**1. No.27**

The graph shows the variation of stress with strain for a material.



What is the Young modulus of the material?

$$E = \frac{\sigma}{\epsilon}$$

[1 mark]

A $1.2 \times 10^5 \text{ Pa}$

☐

B $1.5 \times 10^5 \text{ Pa}$

☐

C $1.2 \times 10^{11} \text{ Pa}$

☐

D $1.5 \times 10^{11} \text{ Pa}$

☒

$$= \frac{2.6 \times 10^9}{0.015} = 1.7 \times 10^{11} \text{ Pa}$$