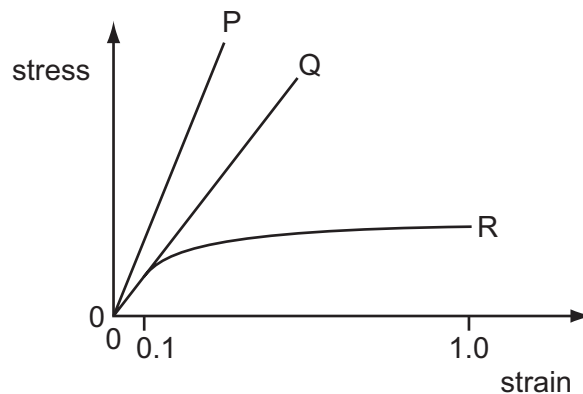


- 20** A horizontal plate of area 0.036 m^2 is beneath the surface of a liquid of density 930 kg m^{-3} . The force on the plate due to the pressure of the liquid is 290 N .

What is the depth of the plate beneath the surface of the liquid?

- A** 0.88 m **B** 1.13 m **C** 8.7 m **D** 9.1 m

- 21** The graph shows the relationship between stress and strain for three wires of the same linear dimensions but made from different materials.



Which statements are correct?

- 1 The extension of P is approximately twice that of Q for the same stress.
- 2 The ratio of the Young modulus for P to that of Q is approximately two.
- 3 For strain less than 0.1, R obeys Hooke's law.

- A** 1, 2 and 3 **B** 1 and 3 only **C** 2 and 3 only **D** 2 only

Space for working