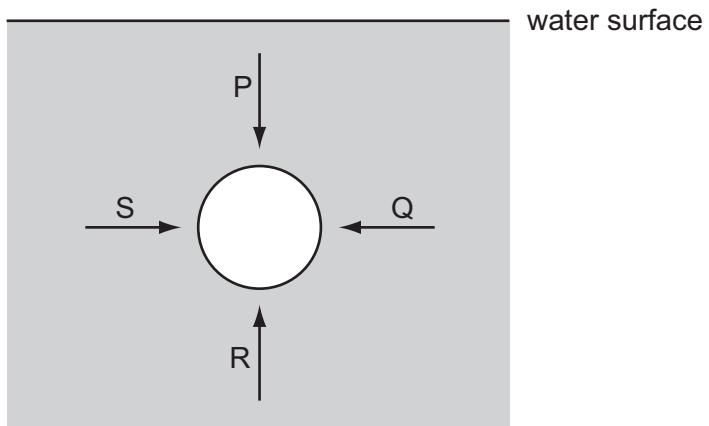


- 15 The diagram represents a sphere under water. P, Q, R and S are forces acting on the sphere, due to the pressure of the water.



Each force acts perpendicularly to the sphere's surface. P and R act in opposite directions vertically. Q and S act in opposite directions horizontally.

Which information about the magnitudes of the forces is correct?

- A  $P < R$  and  $S = Q$
- B  $P > R$  and  $S = Q$
- C  $P = R$  and  $S = Q$  and  $P \neq S$
- D  $P = R$  and  $S = Q$  and  $P = S$

**Space for working**