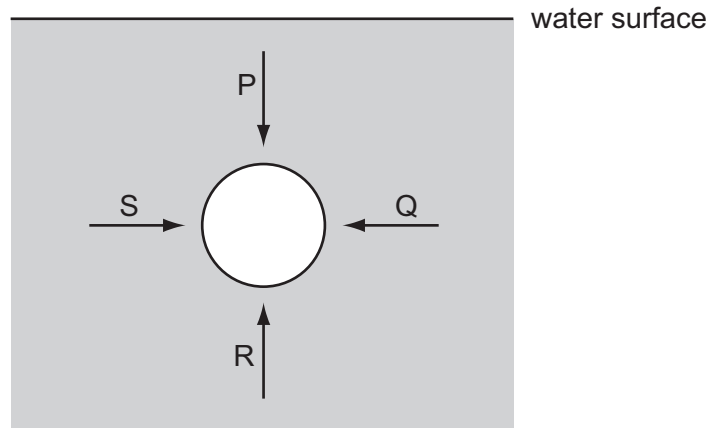


- 15 The diagram represents a sphere under water. P, Q, R and S are forces acting on the sphere, due to the pressure of the water.



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