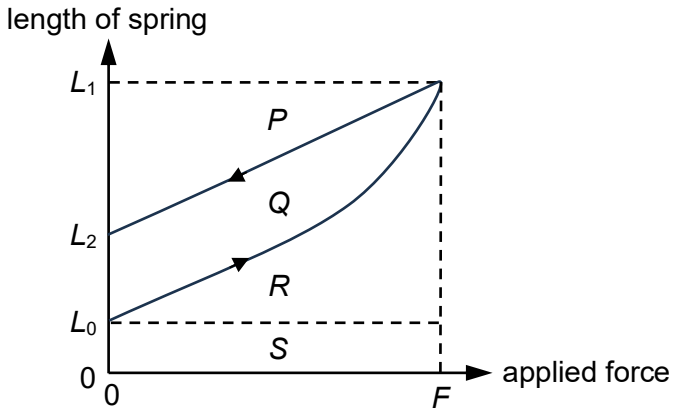
8 A spring of unstretched length L_0 is extended to length L_1 by an applied force that is increased from zero until F. Upon removal of the force, the spring is damaged and has a new unstretched length L_2. The graph shows the variation of the length of the spring with the applied force.



Which combination of areas give the work done by the force to extend the spring from L_0 to L_1 and which area gives the increase in potential energy of the particles in the spring when its unstretched length is increased from L_0 to L_2?

	work done by force from L_0 to L_1	increase in potential energy from L_0 to L_2
A	$P + Q$	Q
B	$R + S$	Q
C	$P + Q$	P
D	$R + S$	P