1 The product of pressure and volume has the same SI base units as

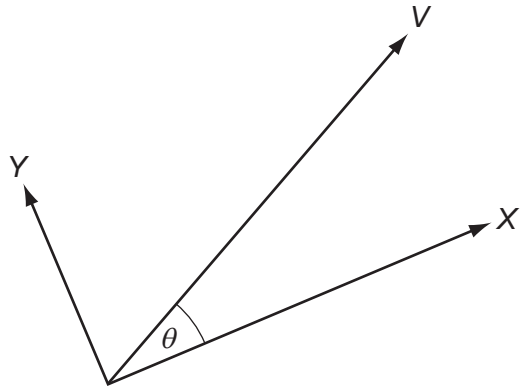
A energy.

B force.

C $\frac{\text{force}}{\text{area}}$.

D $\frac{\text{force}}{\text{length}}$.

2 A vector quantity *V* is resolved into two perpendicular components *X* and *Y*. The angle between *V* and component *X* is θ.



The angle between component *X* and the vector *V* is increased from 0° to 90°.

How do the magnitudes of *X* and *Y* change as the angle θ is increased in this way?

	X	*Y*
A	increase	increase
B	increase	decrease
C	decrease	increase
D	decrease	decrease

Space for working