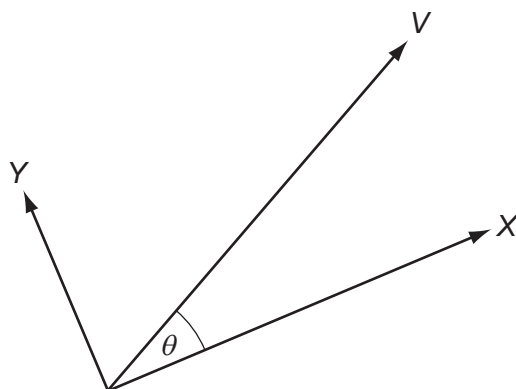


- 6 A vector quantity  $V$  is resolved into two perpendicular components  $X$  and  $Y$ . The angle between  $V$  and component  $X$  is  $\theta$ .



The angle between component  $X$  and the vector  $V$  is increased from  $0^\circ$  to  $90^\circ$ .

How do the magnitudes of  $X$  and  $Y$  change as the angle  $\theta$  is increased in this way?

	$X$	$Y$
<b>A</b>	increase	increase
<b>B</b>	increase	decrease
<b>C</b>	decrease	increase
<b>D</b>	decrease	decrease

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

- A** energy.
- B** force.
- C**  $\frac{\text{force}}{\text{area}}$ .
- D**  $\frac{\text{force}}{\text{length}}$ .

**Space for working**