

- 1 A cylindrical tube rolling down a slope of inclination  $\theta$  moves a distance  $L$  in time  $T$ . The equation relating these quantities is

$$L\left(3 + \frac{a^2}{P}\right) = QT^2 \sin\theta$$

where  $a$  is the internal radius of the tube and  $P$  and  $Q$  are constants.

Which line gives the correct units for  $P$  and  $Q$ ?

	$P$	$Q$
<b>A</b>	$m^2$	$m^2 s^{-2}$
<b>B</b>	$m^2$	$m s^{-2}$
<b>C</b>	$m^2$	$m^3 s^{-2}$
<b>D</b>	$m^3$	$m s^{-2}$