6 A cylindrical tube rolling down a slope of inclination θ 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 row gives the correct units for P and for Q?

	P	Q
A	m^2	$m^2\,s^{-2}$
B	m^2	$m\,s^{-2}$
C	m^2	$m^3\,s^{-2}$
D	m^3	$m\,s^{-2}$