

ภาคผนวกที่ 1 ปริมาณทางฟิสิกส์

Quantity and symbol	Formula	Unit	Symbol of unit	Dimension of quantity
Basic Unit				
Length l	-	metre	m	l
Mass	-	kilogramme	kg	m
Time t	-	second	s	t
Derived units				
Area A	$A = l^2$	square metre	m ²	l ²
Volume V	$V = l^3$	cubic metre	m ³	l ³
Frequency v	$\nu = \frac{1}{T}$	hertz	Hz	l-1
Angular velocity	$\omega = \frac{\Delta\psi}{\Delta t}$	radian per second	rad/s	l-1
Angular acceleration	$\alpha = \frac{\Delta\omega}{\Delta t}$	radian per second per second	rad/s ²	l-2
Linear velocity v	$v = \frac{\Delta l}{\Delta t}$	metre per second	m/s	l-t-1
Linear acceleration a	$a = \frac{\Delta v}{\Delta t}$	metre per second per second	m/s ²	l-t-2

Quantity and symbol	Formula	Unit	Symbol of Unit	Dimension of quantity
Density ρ	$\rho = \frac{m}{v}$	kilogramme per cubic metre	kg/m^3	$\text{l}^{-3} \text{m}$
Fore F, weight G	$F = ma$	newton	N	lmt^{-2}
Specific weight	$= \frac{G}{V}$	newton per cubic metre	N/m^3	$\text{l}^{-2} \text{mt}^{-2}$
Pressure p	$p = \frac{F}{A}$	newton per square metre	N/m^2	$\text{l}^{-1} \text{mt}^{-1}$
Momentum \bar{p}	$\bar{p} = mv = F\Delta t$	kilogramm metre per	kg. m/s	lmt^{-1}
Moment of Inertia I	$I = ml^2$	kilogrammesquare metre	kg.m^2	$\text{l}^2 \text{m}$
Work W and energy E	$w = Fl$	joule	J	$\text{l}^2 \text{mt}^{-2}$
Power P	$P = \frac{\Delta w}{\Delta t}$	watt	W	$\text{l}^2 \text{mt}^{-3}$
Dynamic viscosity η	$\eta = \frac{F \Delta l}{A \Delta V}$	newton-second per square metre	N. s/m^2	$\text{l}^{-1} \text{mt}^{-1}$
Kinematic viscosity ν	$\nu = \frac{n}{\delta}$	square metre per second	m^2 / s	$\text{l}^2 \text{t}^{-1}$