

# Maple T.A. Quick Reference

## Basic Operations

Operation		Command
addition	$a + b$	a+b
subtraction	$a - b$	a-b
multiplication	$a \cdot b$	a*b
division	$\frac{a}{b}$	a/b
exponentiation	$a^b$	a^b

## Constants & Symbols

Constant/Symbol	Command
$\pi$	Pi
e	exp(1)
i	I
$\infty$	infinity

## Functions

Function		Command
trigonometric	$\sin(x), \cos(x), \tan(x),$ $\csc(x), \sec(x), \cot(x)$	$\sin(x), \cos(x), \tan(x),$ $\csc(x), \sec(x), \cot(x)$
inverse trig	$\arcsin(x), \arccos(x), \arctan(x)$	$\arcsin(x), \arccos(x), \arctan(x)$
exponential	$e^x$	exp(x)
logarithmic	$\ln(x), \log_a(x)$	$\ln(x), \ln(x)/\ln(a)$
square root	$\sqrt{x}$	sqrt(x)
n <sup>th</sup> root	$\sqrt[n]{x}$	surd(x,n)
hyperbolic	$\sinh(x), \cosh(x),$ $\tanh(x), \operatorname{sech}(x)$	$\sinh(x), \cosh(x),$ $\tanh(x), \operatorname{sech}(x)$
absolute value	$ x $	abs(x)
factorial	$x!$	factorial(x)

## Vectors & Matrices

Function		Command
horizontal vector	$(a \ b \ c)$	<a b c>
vertical vector	$\begin{pmatrix} a \\ b \\ c \end{pmatrix}$	<a,b,c>
matrix	$\begin{pmatrix} a & b & c \\ d & e & f \\ g & h & i \end{pmatrix}$	< <a b c> , <d e f> , <g h i> > <b>OR</b> < <a,d,g>   <b,e,h>   <c,f,i> >

Always check your answers using the [preview](#) hyperlink before submitting them. This can be found near the entry box of any formula questions.

Be sure to read each question carefully and make sure that you understand how to enter your answer.