

MAPLE SYNTAX REMINDERS

to graph a function on an interval	> plot(f(x) , x = a..b);
to graph two functions on the same axes	> plot ({ f(x) , g(x) } , x = a .. b) ;
to differentiate f(x)	> diff (f(x) , x);
to define a function g(x)	> g:= x -> (formula for g) ;
to set accuracy to 20 digits	> Digits := 20;
to evaluate an expression in decimal form	> evalf (expression);
to evaluate the previous expression	> evalf (%);
to create a loop to perform repeated calculations	> for n from 1 to 10 do ... od;
to solve an equation for x	> solve (equation , x);
to give a decimal approximation to a solution of an equation that lies in the interval [a,b]	> fsolve (equation , x = a..b);
to convert a rational function to partial fraction form	> convert (f(x), parfrac , x);
to fill the area under a curve with n rectangles	> with(student):
	> rightbox (f(x), x = a..b , n);
to sum an expression from 1 to n	> sum (expression , i = 1..n);
to find the limit of an expression as x tends to a	> limit (expression , x = a);
to find the limit of an expression as n tends to infinity	> limit (expression , n = infinity);
to antidifferentiate f(x)	> int (f(x) , x);
to integrate f(x) on the interval [a,b]	> int (f(x) , x = a..b);
to show the integral and then evaluate it	> Int (f(x) , x = a..b); value(%);

SPECIAL FUNCTIONS/SYMBOLS

the natural exponential function	exp(x)
the absolute value of x	abs(x)
the square root of x	sqrt(x)
the nth root of f(x)	surd (f(x) , n)
pi	Pi