

$f$	$\text{whattype}(f)$	$\text{op}(0,f)$	$\text{nops}(f)$	$\text{op}(1,f)$	$\text{op}(2,f)$
-3	integer	Integer	1	-3	ERROR
2/3	fraction	Fraction	2	2	3
3.14	float	Float	2	314	-2
[a,b,b]	list	list	3	a	b
{a,b,b}	set	set	2	a	b
$3x^2y$	'*'	'*'	3	3	$x^4$
$-y$	'*'	'*'	2	-1	$y$
$x^4$	'^'	'^'	2	x	4
$1/x$	'^'	'^'	2	x	-1
$2x^2-3y+\sin t$	'+'	'+'	3	$2x^2$	$-3y$
$\exp(x)$	function	exp	1	x	ERROR
$\text{diff}(f(x),x)$	function	diff	2	$f(x)$	x
y	symbol	symbol	1	y	ERROR
$a[1,2,3]$	indexed	a	3	1	2
$a(1,2,3)$	function	a	3	1	2

if  $\text{type}(x, \text{symbol})$  or  $\text{type}(x, \text{indexed})$  Then ...  
 $\equiv$  if  $\text{type}(x, \text{name})$  then ...

if  $\text{type}(x, \text{integer})$  or  $\text{type}(x, \text{fraction})$  or  $\text{type}(x, \text{float})$  Then ...  
 $\equiv$  if  $\text{type}(x, \text{numeric})$  then ...

type algebraic includes all types above except list, set