

```

> pol:=x^4+x^3-x^2-x;          pol:= x4 + x3 - x2 - x
=
> whattype(pol);              `+`
=
> nops(pol);                  4
=
> op(pol);                    x4, x3, -x2, -x
=
> op(1,pol);                  x4
=
> subs(x=0, cos(x)*(sin(x)+x^2+1));
                                cos(0) (sin(0) + 1)
=
> eval(%);                    1
=
> subs(x=y, y=z, x*y^2);      z3
=
> subs({x=y, y=z}, x*y^2);    yz2
=
> subs(x*y=product, x*y*z);   xyz
=
> algsubs(x*y=product, x*y*z); z product
=
> subsop(3=y, x^2+x+1/x);     x2 + x + y
=
> vyraz:=(x^2+2*x+1)^2+(x^2-2*x+1)^2;
                                vyraz:= (x2 + 2 x + 1)2 + (x2 - 2 x + 1)2
=
> map(factor, vyraz);
                                (x + 1)4 + (x - 1)4

```

```
pol=x^4+x^3-x^2-x; pol
```

$$x^4 + x^3 - x^2 - x$$

```
type(pol)
```

<type 'sage.symbolic.expression.Expression' >

```
pol.nops()
```

4

```
operandy=pol.operands(); operandy
```

$$[x^4, x^3, -x^2, -x]$$

```
operandy[0]
```

$$x^4$$

```
(cos(x)*sin(x)+x^2+1).subs({x:0})
```

1

```
var('y, z'); (x*y^2).subs({x:y}).subs({y:z})
```

$$(y, z)$$
$$z^3$$

```
(x*y^2).subs({x:y, y:z})
```

$$yz^2$$

```
maxima("ratsubst(product, x*y, x*y*z)")
```

productz

```
vyraz=(x^2+2*x+1)^2+(x^2-2*x+1)^2; vyraz
```

$$(x^2 + 2x + 1)^2 + (x^2 - 2x + 1)^2$$

```
map(factor, vyraz.operands())
```

$$[(x + 1)^4, (x - 1)^4]$$