

# Calculs dans Bool

FX D

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```
# http://doc.sagemath.org/html/en/reference/polynomial\_rings/sage/\rings/polynomial/pbori.html
```

```
A.<a,b> = PolynomialRing(ZZ);A
```

```
Multivariate Polynomial Ring in a, b over Integer Ring
```

```
f=(1+a*(1+b))*(1+b*(1+a));f
```

```
a^2*b^2 + a^2*b + a*b^2 + 3*a*b + a + b + 1
```

```
AA.<a,b> = BooleanPolynomialRing(2, order='lex')
```

```
AA(f)
```

```
a + b + 1
```

```
B.<b,e,f,g> = BooleanPolynomialRing(4, order='lex')
```

```
r=(1+(1+g)*(1+e)*(1+b))*(1+(1+f)*g)*(1+(1+e)*b*f)*(1+e*g)*(1+g*(1+b)\  
)*(g+f+g*f);r
```

```
e*f*g + e*f
```