

# n\_nodes

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This file is part of CasADi.

CasADi -- A symbolic framework for dynamic optimization.  
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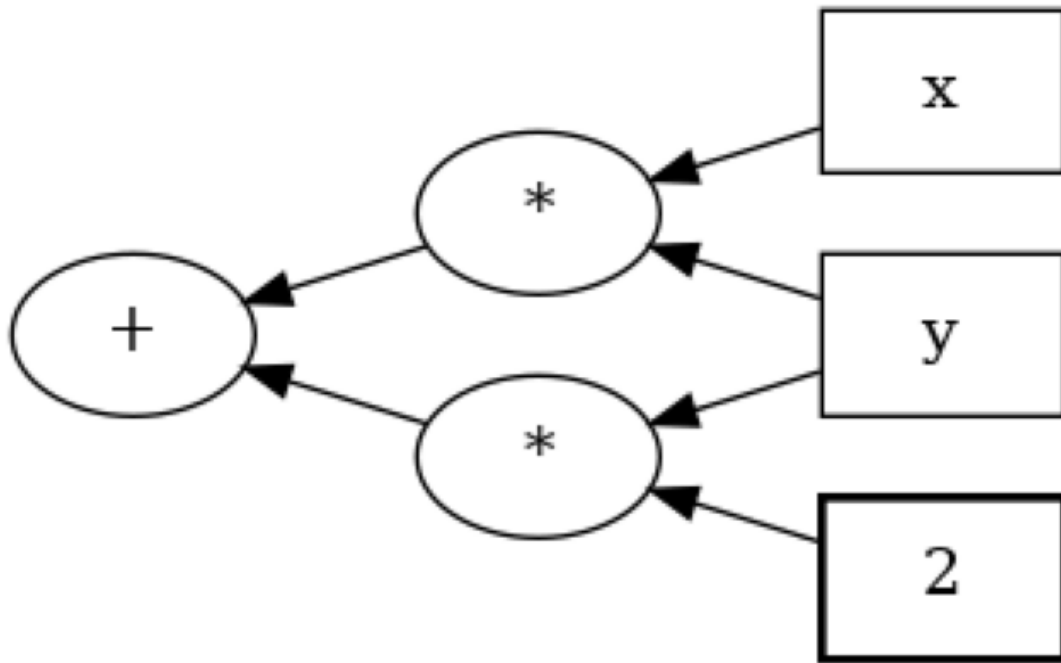
## 1 n\_nodes

```
[1]: from casadi import *  
     from casadi.tools import *
```

Let's build a trivial symbolic SX graph

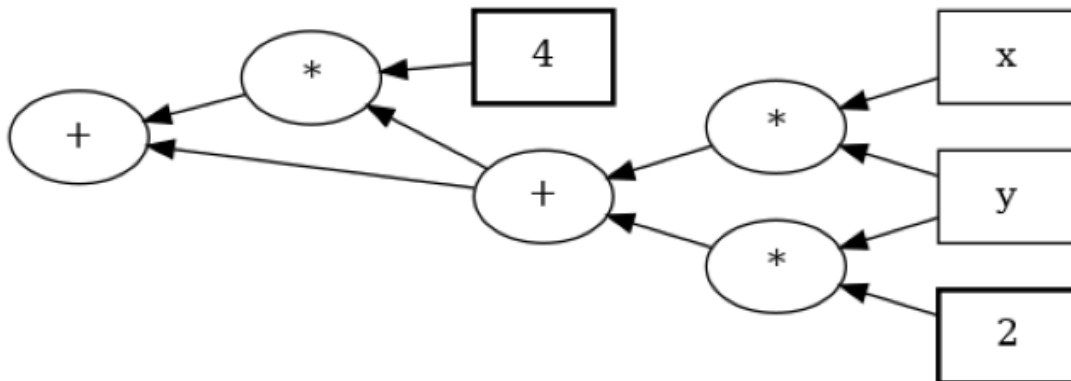
```
[2]: x = SX.sym("x")  
     y = SX.sym("y")  
     z = x*y+2*y  
     print(n_nodes(z), " nodes in ", z)  
     dotdraw(z)
```

```
6 nodes in ((x*y)+(2*y))
```



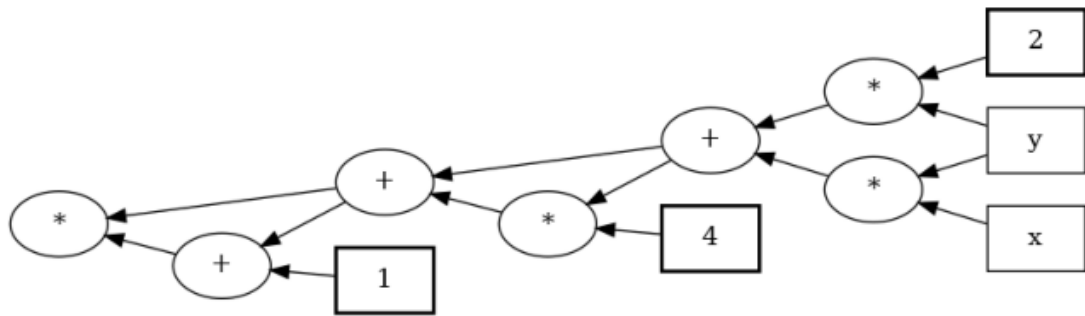
```
[3]: z += 4*z
print(n_nodes(z), " nodes in ", z)
dotdraw(z)
```

9 nodes in @1=((x\*y)+(2\*y)), (@1+(4\*@1))



```
[4]: z *= z+1
print(n_nodes(z), " nodes in ", z)
dotdraw(z)
```

12 nodes in  $@1=((x*y)+(2*y))$ ,  $@2= (@1+(4*@1))$ ,  $(@2*(@2+1))$



[ ]: