

In [1]:

```
f(x)=x^2*e^(2*x)
show(f)
```

Out[1]:

$$x \mapsto x^2 e^{(2x)}$$

In [2]:

```
show(derivative(f(x),x,1))
```

Out[2]:

$$2x^2 e^{(2x)} + 2xe^{(2x)}$$

In [3]:

```
show(derivative(f(x),x,2))
```

Out[3]:

$$4x^2 e^{(2x)} + 8xe^{(2x)} + 2e^{(2x)}$$

In [4]:

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show(derivative(f(x),x,3))
```

Out[4]:

$$8x^2 e^{(2x)} + 24xe^{(2x)} + 12e^{(2x)}$$

In [5]:

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show(derivative(f(x),x,4))
```

Out[5]:

$$16x^2 e^{(2x)} + 64xe^{(2x)} + 48e^{(2x)}$$

In [6]:

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show(derivative(f(x),x,5))
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Out[6]:

$$32x^2 e^{(2x)} + 160xe^{(2x)} + 160e^{(2x)}$$

In [0]: