```
eq := y·y''−y^2 = y·y'·tanh(x);
eq := subs({y''= y(x)·z^2 + y(x)·z', y'= y(x)z}, eq);
eq := simplify(eq);
#eq :=int(1/z, z)) = int((tanh(x)), x);
```

$$eq := y(x)\left(\frac{d^2}{dx^2}\,y(x)\right) - \left(\frac{d}{dx}\,y(x)\right)^2 = y(x)\left(\frac{d}{dx}\,y(x)\right)\tanh(x)$$

$$eq := y(x)\left(y(x)\,z(x)^2 + y(x)\left(\frac{d}{dx}\,z(x)\right)\right) - y(x)^2\,z(x)^2 = y(x)^2\,z(x)\,\tanh(x)$$

$$eq := y(x)^2\left(\frac{d}{dx}\,z(x)\right) = y(x)^2\,z(x)\,\tanh(x)$$

```
y_ := ln(|y|)= C1·sinh(x) + C2
a1, a2, a3 := seq(subs(C1 = i, a), i =−1 ..1) :
b1, b2, b3 := seq(subs(C1 = i, b), i =−1 ..1) :
c1, c2, c3 := seq(subs(C1 = i, c), i =−1 ..1) :
plot([rhs(a1), rhs(a2), rhs(a3), rhs(b1), rhs(b2), rhs(b3), rhs(c1), rhs(c2), rhs(c3)], x = 0
    ..4)
```