

```

> restart
> Ecua := 2·y·(y' + 2) - x·(y')² = 0
      Ecua := 2 y(x) ⎛  $\frac{d}{dx} y(x) + 2$  ⎞ - x ⎛  $\frac{d}{dx} y(x)$  ⎞² = 0 (1)
=
> SolGral := _C·y(x) - (_C - x)² = 0
      SolGral := _C y(x) - (_C - x)² = 0 (2)
=
> SolDesp := isolate(SolGral, y(x))
      SolDesp := y(x) =  $\frac{(_C - x)²}{_C}$  (3)
=
> DerSolDesp := diff(SolDesp, x)
      DerSolDesp :=  $\frac{d}{dx} y(x) = -\frac{2(_C - x)}{_C}$  (4)
=
> Comprob := simplify(eval(subs(y(x) = rhs(SolDesp), Ecua)))
      Comprob := 0 = 0 (5)
=
> SolPart := subs(_C = 5, SolDesp)
      SolPart := y(x) =  $\frac{(5 - x)²}{5}$  (6)
=
> ComprobDos := simplify(eval(subs(y(x) = rhs(SolPart), Ecua)))
      ComprobDos := 0 = 0 (7)
=
> SolSingular := y(x) = -4·x
      SolSingular := y(x) = -4 x (8)
=
> ComprobTres := simplify(eval(subs(y(x) = rhs(SolSingular), Ecua)))
      ComprobTres := 0 = 0 (9)
=
> SolPi := subs(_C = Pi, SolDesp)
      SolPi := y(x) =  $\frac{(\pi - x)²}{\pi}$  (10)
=
> ComprobCuatro := simplify(eval(subs(y(x) = rhs(SolPi), Ecua)))
      ComprobCuatro := 0 = 0 (11)
>
>
>

```