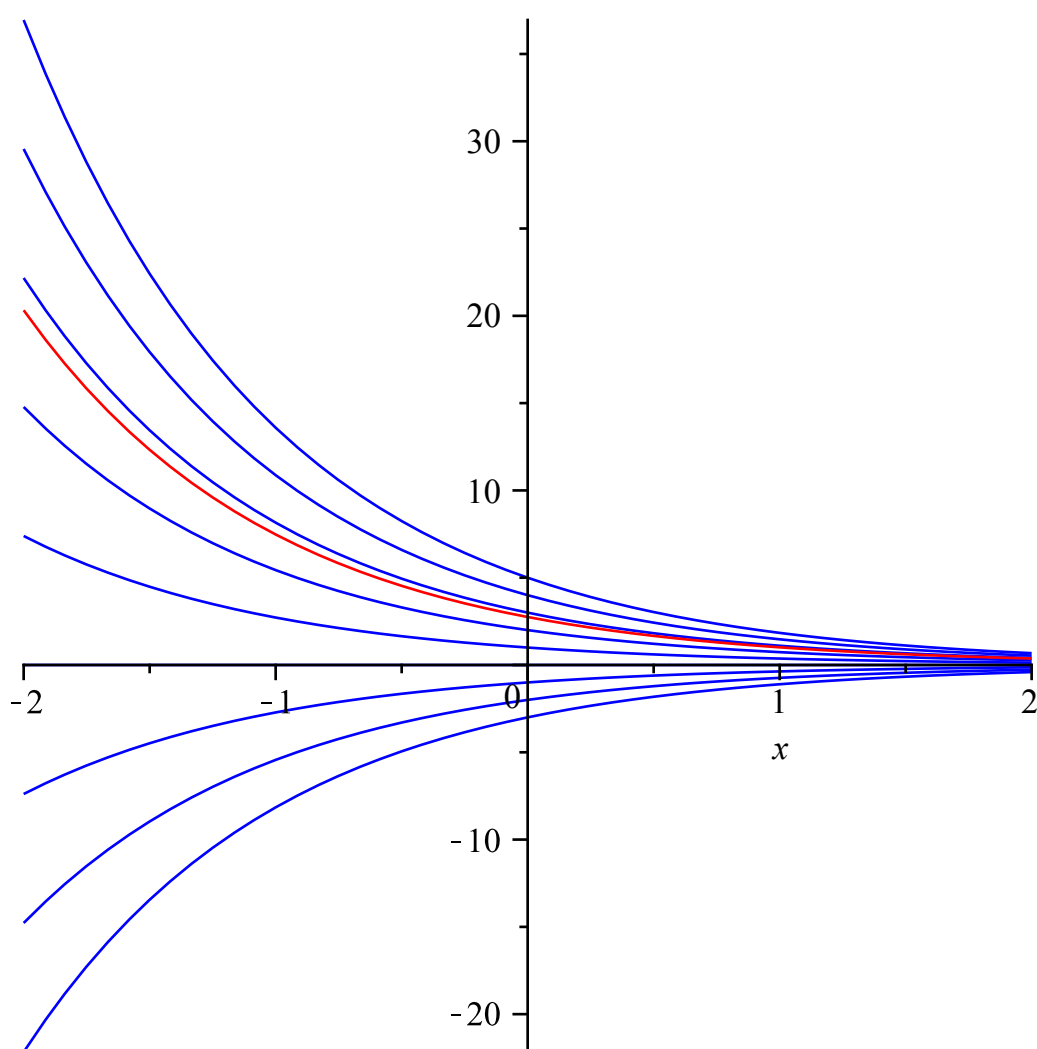


```

[> restart
=C
> Ecuacion := diff(y(x), x) + y(x) = 0
                                Ecuacion :=  $\frac{d}{dx} y(x) + y(x) = 0$  (1)
=
> Condicion := y(0) =  $\frac{275}{100}$ 
                                Condicion :=  $y(0) = \frac{11}{4}$  (2)
=
> SolucionGeneral := dsolve(Ecuacion)
                                SolucionGeneral :=  $y(x) = \_C1 e^{-x}$  (3)
=
> SolucionParticular := dsolve({Ecuacion, Condicion})
                                SolucionParticular :=  $y(x) = \frac{11}{4} e^{-x}$  (4)
=
> plot([subs(_C1=-3, rhs(SolucionGeneral)), subs(_C1=-2, rhs(SolucionGeneral)),
        subs(_C1=-1, rhs(SolucionGeneral)), subs(_C1=0, rhs(SolucionGeneral)), subs(_C1=
        =1, rhs(SolucionGeneral)), subs(_C1=2, rhs(SolucionGeneral)), subs(_C1=3,
        rhs(SolucionGeneral)), subs(_C1=4, rhs(SolucionGeneral)), subs(_C1=5,
        rhs(SolucionGeneral)), rhs(SolucionParticular)], x=-2..2, color=[blue, blue, blue,
        blue, blue, blue, blue, blue, blue, red])

```



> Ecuacion

$$\frac{d}{dx} y(x) + y(x) = 0 \quad (5)$$

> EcuacionDos := isolate(Ecuacion, diff(y(x), x))

$$EcuacionDos := \frac{d}{dx} y(x) = -y(x) \quad (6)$$

> Solucion := int(1/y, y) = int(-1, x) + K₁

$$Solucion := \ln(y) = -x + K_1 \quad (7)$$

> SolucionDos := isolate(Solucion, y)

$$SolucionDos := y = e^{-x + K_1} \quad (8)$$

> SolucionGeneral := y(x) = C₁ · exp(-x)

$$SolucionGeneral := y(x) = C_1 e^{-x} \quad (9)$$

> DerivadaSolucion := diff(SolucionGeneral, x)

$$DerivadaSolucion := \frac{d}{dx} y(x) = -C_1 e^{-x} \quad (10)$$

> ParametroUno := isolate(DerivadaSolucion, C₁)

$$ParametroUno := C_1 = -\frac{\frac{d}{dx} y(x)}{e^{-x}} \quad (11)$$

> ParametroDos := isolate(SolucionGeneral, C₁)

$$ParametroDos := C_1 = \frac{y(x)}{e^{-x}} \quad (12)$$

> Ecuacion := rhs(ParametroUno) = rhs(ParametroDos)

$$Ecuacion := -\frac{\frac{d}{dx} y(x)}{e^{-x}} = \frac{y(x)}{e^{-x}} \quad (13)$$

> EcuacionOriginal := simplify(exp(-x) · (simplify(rhs(Ecuacion) - lhs(Ecuacion)))) = 0

$$EcuacionOriginal := \frac{d}{dx} y(x) + y(x) = 0 \quad (14)$$

> with(plots)

[animate, animate3d, animatecurve, arrow, changecoords, complexplot, complexplot3d, conformal, conformal3d, contourplot, contourplot3d, coordplot, coordplot3d, densityplot, display, dualaxisplot, fieldplot, fieldplot3d, gradplot, gradplot3d, graphplot3d, implicitplot, implicitplot3d, inequal, interactive, interactiveparams, intersectplot, listcontplot, listcontplot3d, listdensityplot, listplot, listplot3d, loglogplot, logplot, matrixplot, multiple, odeplot, pareto, plotcompare, pointplot, pointplot3d, polarplot, polygonplot, polygonplot3d, polyhedra_supported, polyhedraplot, rootlocus, semilogplot, setcolors, setoptions, setoptions3d, spacecurve, sparsematrixplot, surfdata, textplot, textplot3d, tubeplot] (15)

> evalf(exp(1), 100)

2.7182818284590452353602874713526624977572470936999595749669676277240766303535\ 47594571382178525166427 (16)

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