Test.wl

In[1]:=
```
sol1 = DSolve[{∂t y[x, t] + 2 ∂x y[x, t] == Sin[x], y[0, t] == Cos[t]}, y[x, t], {x, t}]
```

Out[1]=
$$\left\{\left\{y[x,\ t] \to \frac{1}{2}\left(1 + 2\ \text{Cos}\left[t - \frac{x}{2}\right] - \text{Cos}[x]\right)\right\}\right\}$$

In[2]:=
```
sol2 = sol1[[1, 1, 2]]
```

Out[2]=
$$\frac{1}{2}\left(1 + 2\ \text{Cos}\left[t - \frac{x}{2}\right] - \text{Cos}[x]\right)$$

In[3]:=
```
Plot3D[sol2, {x, -10, 10}, {t, -5, 5}]
```

Out[3]=