

# Test.wl

## 1 Test formula and plot

Test formula and plot.

### 1.1 Test formula

```
In[ ]:= sol1 = DSolve[{ $\partial_t y[x, t] + 2 \partial_x y[x, t] == \sin[x]$ ,  $y[0, t] == \cos[t]$ },  $y[x, t]$ , { $x, t$ }
```

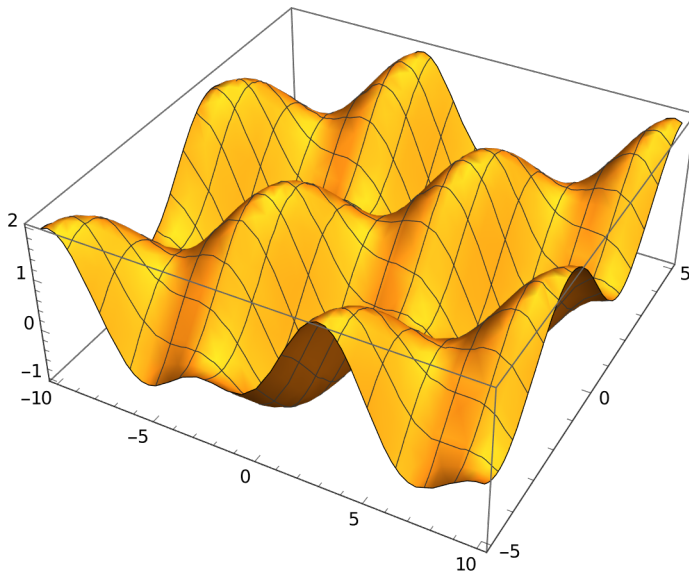
$$\left\{ \left\{ y[x, t] \rightarrow \frac{1}{2} \left( 1 + 2 \cos\left[t - \frac{x}{2}\right] - \cos[x] \right) \right\} \right\}$$

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

$$\frac{1}{2} \left( 1 + 2 \cos\left[t - \frac{x}{2}\right] - \cos[x] \right)$$

### 1.2 Test plot

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



## 2 Test manipulate

Test manipulate.

```
In[ ]:= Manipulate[Plot[Sin[n x], {x, 0, 2  $\pi$ }], {n, 1, 20}]
```

