In[•]:=
```
deqn = Laplacian[V[x, y], {x, y}] == 0
rectangle = Rectangle[{0, 0}, {10, 10}]
boundary = DirichletCondition[
  V[x, y] == Piecewise[{{0, x == 10 && 0 < y < 10}, {0, x == 0 && 0 < y < 10}}, 10], True]
solution = DSolveValue[{deqn, boundary}, V, {x, y} ∈ rectangle]
```

Out[•]=
$$V^{(0,2)}[x, y] + V^{(2,0)}[x, y] == 0$$

Out[•]=
$$\text{Rectangle}[\{0, 0\}, \{10, 10\}]$$

Out[•]=
$$\text{DirichletCondition}\left[V[x, y] == \begin{cases} 0 & (x == 10 \&\& 0 < y < 10) \,||\, (x == 0 \&\& 0 < y < 10) \\ 10 & \text{True} \end{cases}, \text{True}\right]$$

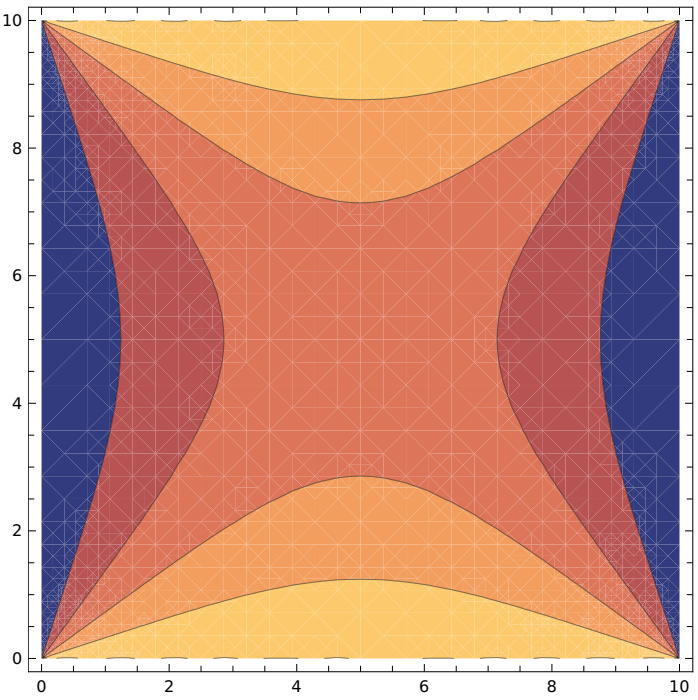
Out[•]=
$$\text{Function}\left[\{x, y\}, \sum_{K[1]=1}^{\infty} \left(-\frac{20\,(-1+(-1)^{K[1]})\,\text{Csch}[\pi K[1]]\,\text{Sin}\left[\frac{1}{10}\pi x K[1]\right]\text{Sinh}\left[\frac{1}{10}\pi(10-y)K[1]\right]}{\pi K[1]} - \frac{20\,(-1+(-1)^{K[1]})\,\text{Csch}[\pi K[1]]\,\text{Sin}\left[\frac{1}{10}\pi x K[1]\right]\text{Sinh}\left[\frac{1}{10}\pi y K[1]\right]}{\pi K[1]} \right)\right]$$

In[•]:=
```
first200 = solution /. ∞ → 200 // Activate
```

Out[•]=
$$\text{Function}\left[\{x, y\}, \sum_{K[1]=1}^{200} \left(-\frac{20\,(-1+(-1)^{K[1]})\,\text{Csch}[\pi K[1]]\,\text{Sin}\left[\frac{1}{10}\pi x K[1]\right]\text{Sinh}\left[\frac{1}{10}\pi(10-y)K[1]\right]}{\pi K[1]} - \frac{20\,(-1+(-1)^{K[1]})\,\text{Csch}[\pi K[1]]\,\text{Sin}\left[\frac{1}{10}\pi x K[1]\right]\text{Sinh}\left[\frac{1}{10}\pi y K[1]\right]}{\pi K[1]} \right)\right]$$

In[•]:=
```
ContourPlot[first200[x, y], {x, y} ∈ rectangle]
```

Out[•]=



In[•]:=
```
deqn2 = Laplacian[V[x, y], {x, y}] == -4 π * x
```

Out[•]= $V^{(0,2)}[x, y] + V^{(2,0)}[x, y] == -4 \pi x$

In[•]:=
```
solution2 = NDSolveValue[{deqn2, boundary}, V, {x, y} ∈ rectangle]
```

Out[•]= InterpolatingFunction[]

In[•]:=
```
ContourPlot[solution2[x, y], {x, y} ∈ rectangle]
```

Out[•]=