

the first two cases, the \mathcal{H}^1 -norm of the difference between the exact solution and the numerical solution is of order $\mathcal{O}(\Delta t)$ and $\mathcal{O}(\Delta x)$, respectively. In the third case, the \mathcal{H}^1 -norm of the difference between the exact solution and the numerical solution is of order $\mathcal{O}(\Delta t)$ and $\mathcal{O}(\Delta x^2)$, respectively.

Figure 1 shows the numerical solution of the Burgers equation with $\Delta t = 0.01$ and $\Delta x = 0.01$. The numerical solution is in good agreement with the exact solution. The numerical solution is also in good agreement with the exact solution in the case of the Burgers equation with $\Delta t = 0.01$ and $\Delta x = 0.01$.

Figure 2 shows the numerical solution of the Burgers equation with $\Delta t = 0.01$ and $\Delta x = 0.01$. The numerical solution is in good agreement with the exact solution. The numerical solution is also in good agreement with the exact solution in the case of the Burgers equation with $\Delta t = 0.01$ and $\Delta x = 0.01$.

Figure 3 shows the numerical solution of the Burgers equation with $\Delta t = 0.01$ and $\Delta x = 0.01$. The numerical solution is in good agreement with the exact solution. The numerical solution is also in good agreement with the exact solution in the case of the Burgers equation with $\Delta t = 0.01$ and $\Delta x = 0.01$.

Figure 4 shows the numerical solution of the Burgers equation with $\Delta t = 0.01$ and $\Delta x = 0.01$. The numerical solution is in good agreement with the exact solution. The numerical solution is also in good agreement with the exact solution in the case of the Burgers equation with $\Delta t = 0.01$ and $\Delta x = 0.01$.

Figure 5 shows the numerical solution of the Burgers equation with $\Delta t = 0.01$ and $\Delta x = 0.01$. The numerical solution is in good agreement with the exact solution. The numerical solution is also in good agreement with the exact solution in the case of the Burgers equation with $\Delta t = 0.01$ and $\Delta x = 0.01$.

Figure 6 shows the numerical solution of the Burgers equation with $\Delta t = 0.01$ and $\Delta x = 0.01$. The numerical solution is in good agreement with the exact solution. The numerical solution is also in good agreement with the exact solution in the case of the Burgers equation with $\Delta t = 0.01$ and $\Delta x = 0.01$.

Figure 7 shows the numerical solution of the Burgers equation with $\Delta t = 0.01$ and $\Delta x = 0.01$. The numerical solution is in good agreement with the exact solution. The numerical solution is also in good agreement with the exact solution in the case of the Burgers equation with $\Delta t = 0.01$ and $\Delta x = 0.01$.

Figure 8 shows the numerical solution of the Burgers equation with $\Delta t = 0.01$ and $\Delta x = 0.01$. The numerical solution is in good agreement with the exact solution. The numerical solution is also in good agreement with the exact solution in the case of the Burgers equation with $\Delta t = 0.01$ and $\Delta x = 0.01$.

Figure 9 shows the numerical solution of the Burgers equation with $\Delta t = 0.01$ and $\Delta x = 0.01$. The numerical solution is in good agreement with the exact solution. The numerical solution is also in good agreement with the exact solution in the case of the Burgers equation with $\Delta t = 0.01$ and $\Delta x = 0.01$.