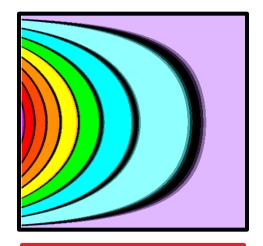
Solution of Laplace's Equation on Square plate

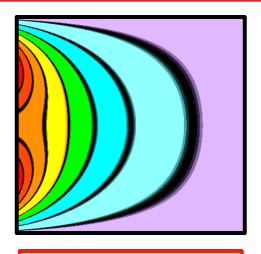
0°C 0°C 0°C

The formula for the temperature distribution on a π by π cm metal plate which is 100 degrees on one side and 0 degrees on the other three sides is:

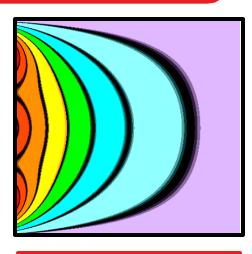
$$u(x,y) = \sum_{n \text{ odd}} \frac{400}{n\pi} \frac{\sin(ny) \sinh(n(\pi - x))}{\sinh(n\pi)}$$







sum of 1st two terms of series



sum of 1st three terms of series



