Plotting 1.d:

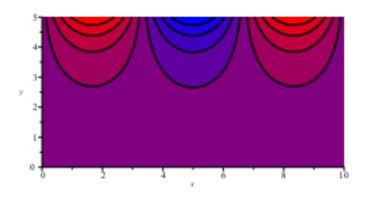
$$B3 := \frac{1}{\sinh\left(\frac{3 \cdot \text{Pi} \cdot b}{a}\right)} :$$

$$psum := B3 \cdot \sin\left(\frac{3 \cdot \text{Pi} \cdot x}{a}\right) \cdot \sinh\left(\frac{3 \cdot \text{Pi} \cdot y}{a}\right) :$$

$$psum := subs(a = 10, b = 5, psum) :$$

$$with(plots) :$$

$$contourplot(psum, x = 0..10, y = 0..5, scaling = constrained, coloring = [blue, red], filled regions = true)$$



plot3d(psum, x = 0..10, y = 0..5)

