Conclusions

Note Title 22-05-2018

(Hadamard's example.)

$$u_{xx} + u_{yy} = 0, \quad x \in \mathbb{R}, \quad y > 0$$

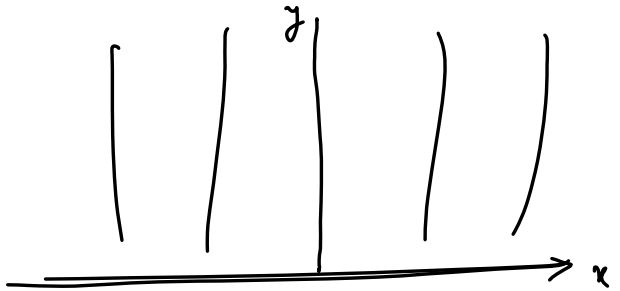
I.C's:

$$u(x,0) = 0$$

$$u_y(x,0) = \frac{\sin n\pi}{n}$$

Soln:

$$u(x,y) = \frac{1}{n^2} \sin(nx) \sinh(ny).$$



$$\begin{cases} u_{xx} + u_{yy} = 0, \quad x \in \mathbb{R}, \quad y > 0 \\ u(x,0) = 0 \\ u_y(x,0) = 0 \end{cases}$$

Soln:

$$u(x,y) \equiv 0.$$