



## W2-6-3 Temperature distribution 3

The temperature,  $T$  in degrees Celsius on a point  $(x, y)$  with  $x$  and  $y$  in metres on a flat metal plate is provided by  $T(x, y) = \frac{60}{(1+x^2+y^2)}$ . Find the change in temperature as a function of the distance in the  $y$ -direction.  $\left(\frac{\partial T}{\partial y}\right)_x = \dots\dots$

In the  $y$ -direction it holds that  $\left(\frac{\partial T}{\partial y}\right)_x = \frac{-120y}{(1+x^2+y^2)^2}$ .