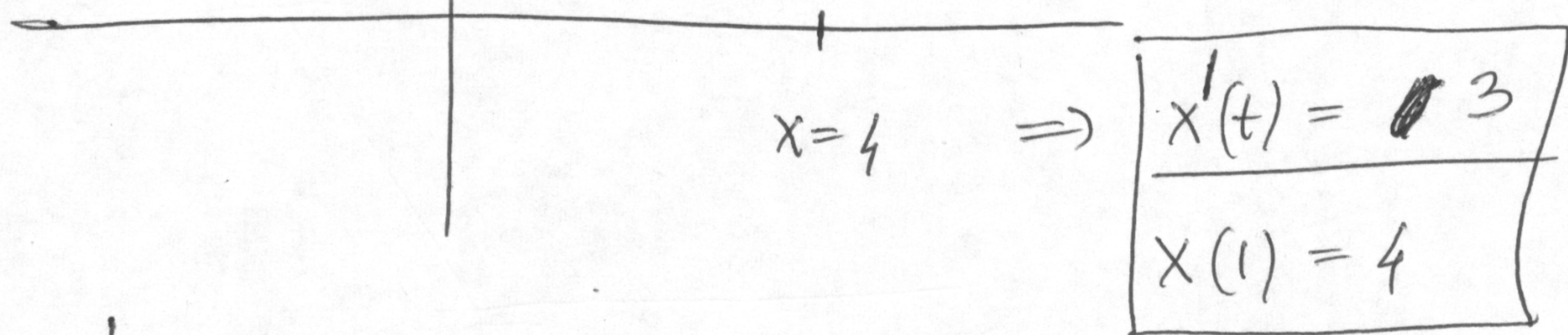
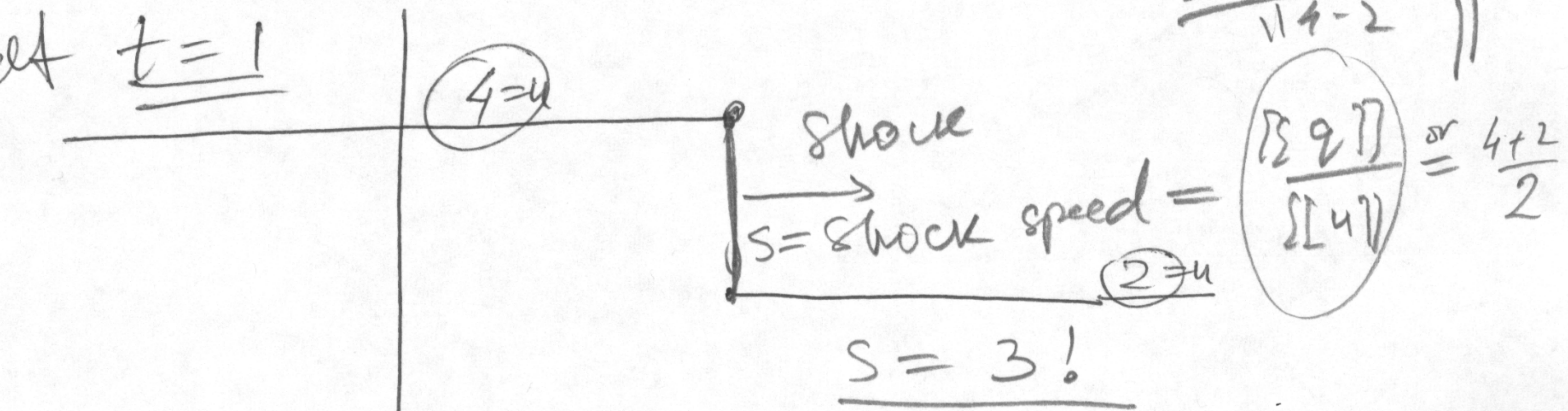


(ii) At  $t = 1$ , we have  $u(x, 1) = 4$  if  $x < 4$ , and  $u(x, 1) = 2$ , if  $x > 4$ .  
Solve this problem for  $t > 1$ .

at  $t = 1$



$t \geq 1$

$$u(x, t) = \begin{cases} 4 & \text{if } x < 4 + 3(t-1) \\ 2 & \text{if } x > 4 + 3(t-1) \end{cases}$$

$\underline{\underline{3t + 1}}$

picture:

