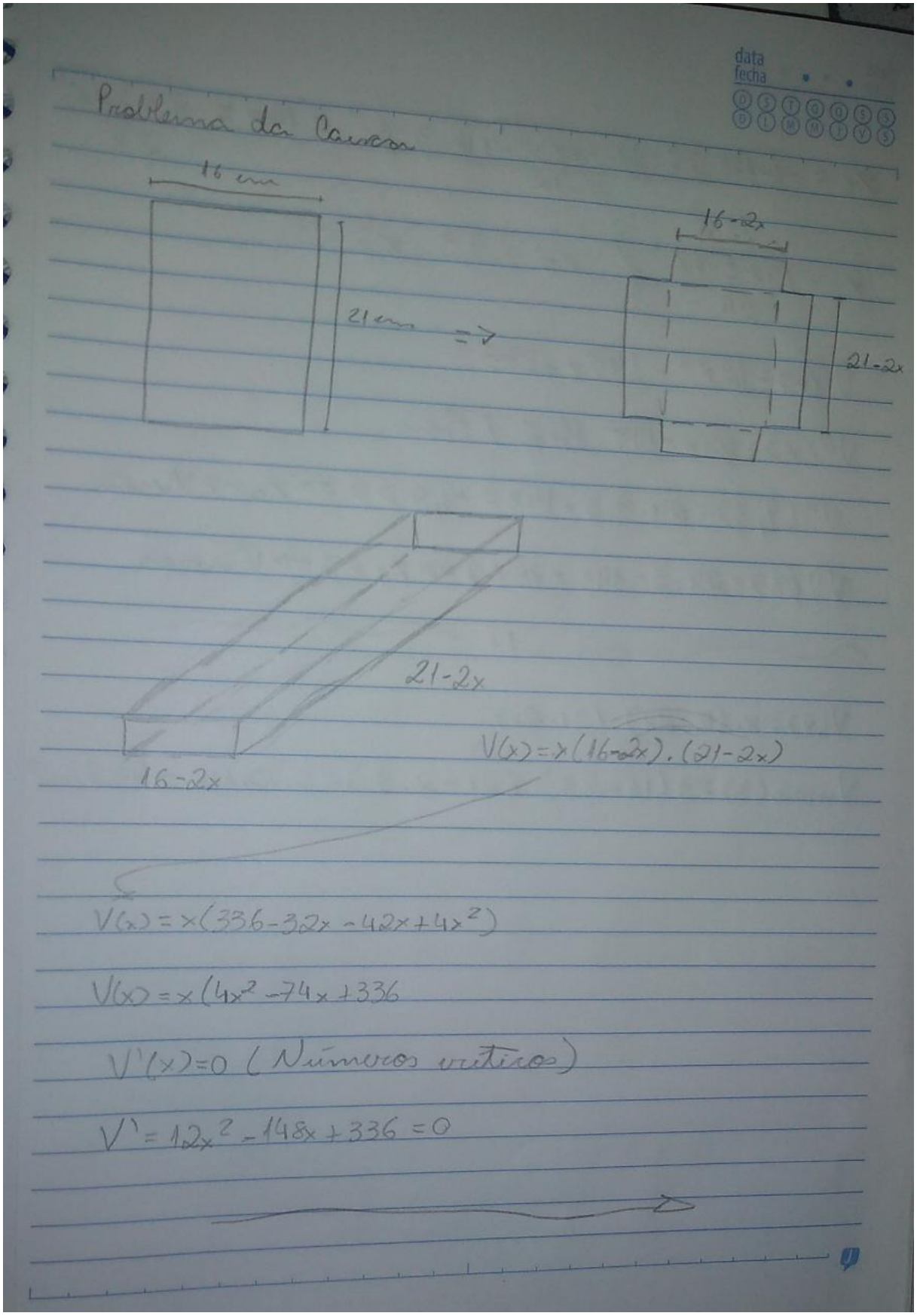
LUCAS BARBOSA BRANCALHÃO



data
fecha

$x_c = \frac{-(-148) \pm \sqrt{(-148)^2 - 4.12.336}}{2.12} = \frac{148 \pm \sqrt{5776}}{24}$

$x_c = \frac{148 \pm 76}{24}$ $\begin{cases} x_c' = 9,3 \\ x_c^2 = 3 \end{cases}$

$V'(x) = 12x^2 - 148x + 336$

$V^2(x) = 24x - 148$ Max / Min

$V''(9,3) = 24.9,3 - 148 = 75,2 > 0 \Rightarrow x_c \rightarrow V_{mín}$

$V''(3) = 24.3 - 148 = -76 < 0 \Rightarrow x_c = 3 \rightarrow V_{max}$

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$V(x) = x.(16-2x).(21-2x)$

$V_{max}(3) = 3(16-2.3).(21-2.3) = 3.10.15 = 450\,cm^2$