

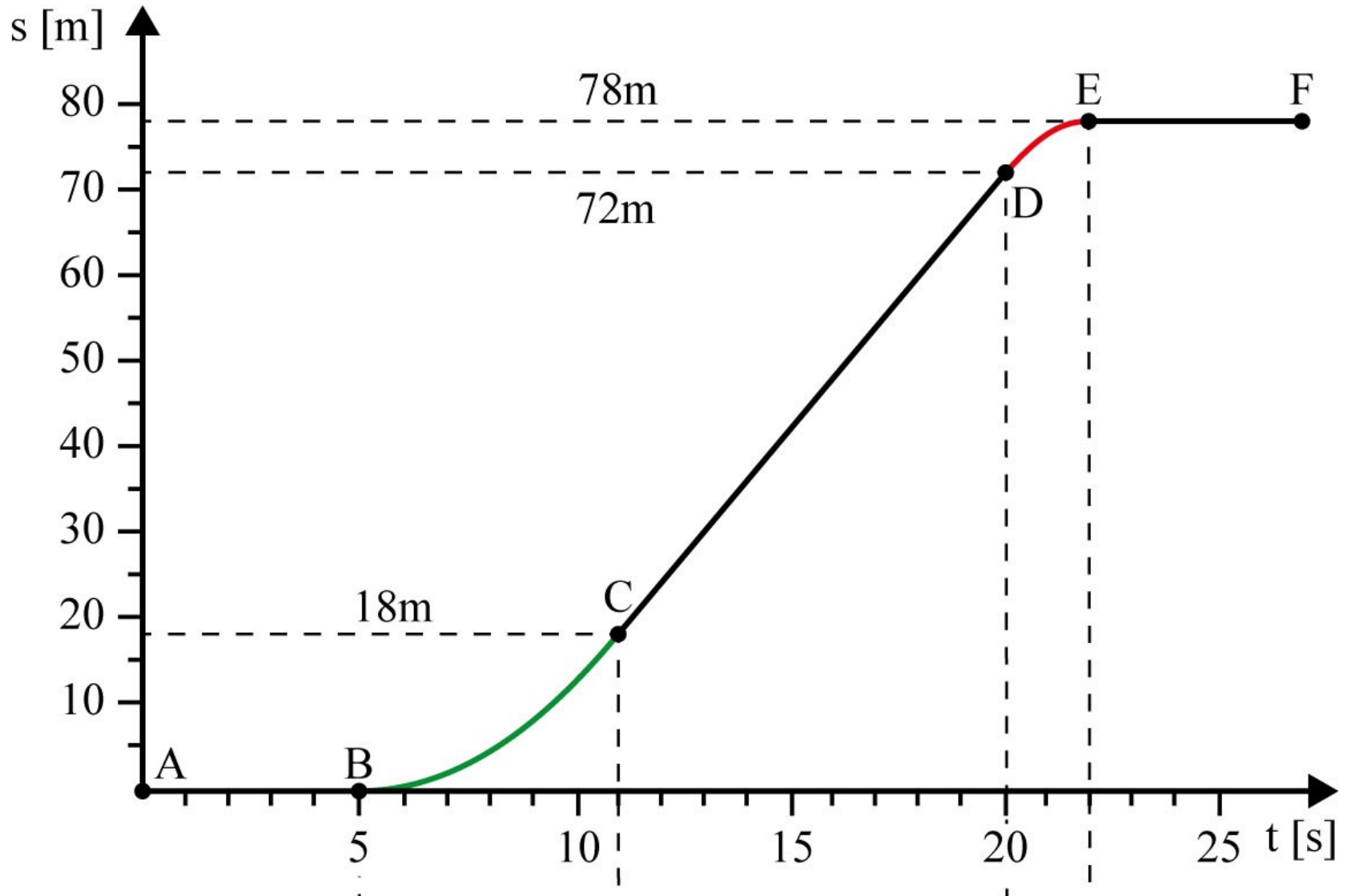
The background features several mathematical sketches and formulas. At the top left, there is a green integral formula  $\int_a^b f(x) dx = F(b) - F(a)$ . At the top center, there is a partial derivative  $\frac{\partial}{\partial y} f(x, y, z)$  and a vector diagram with vectors  $\vec{a}$  and  $\vec{b}$ . At the top right, there is a hyperbolic identity  $\cosh^2 \phi - \sinh^2 \phi = 1$ . In the middle right, there is a volume formula  $V_K = \frac{1}{3} \pi r^2 h$ . At the bottom right, there is a complex number representation  $z = |z| \cos \varphi + |z| i \sin \varphi$ . At the bottom left, there is a black triangle. The main title is centered in large black font.

# Mathematischer Vorkurs zu den Vorlesungen Physik A+B

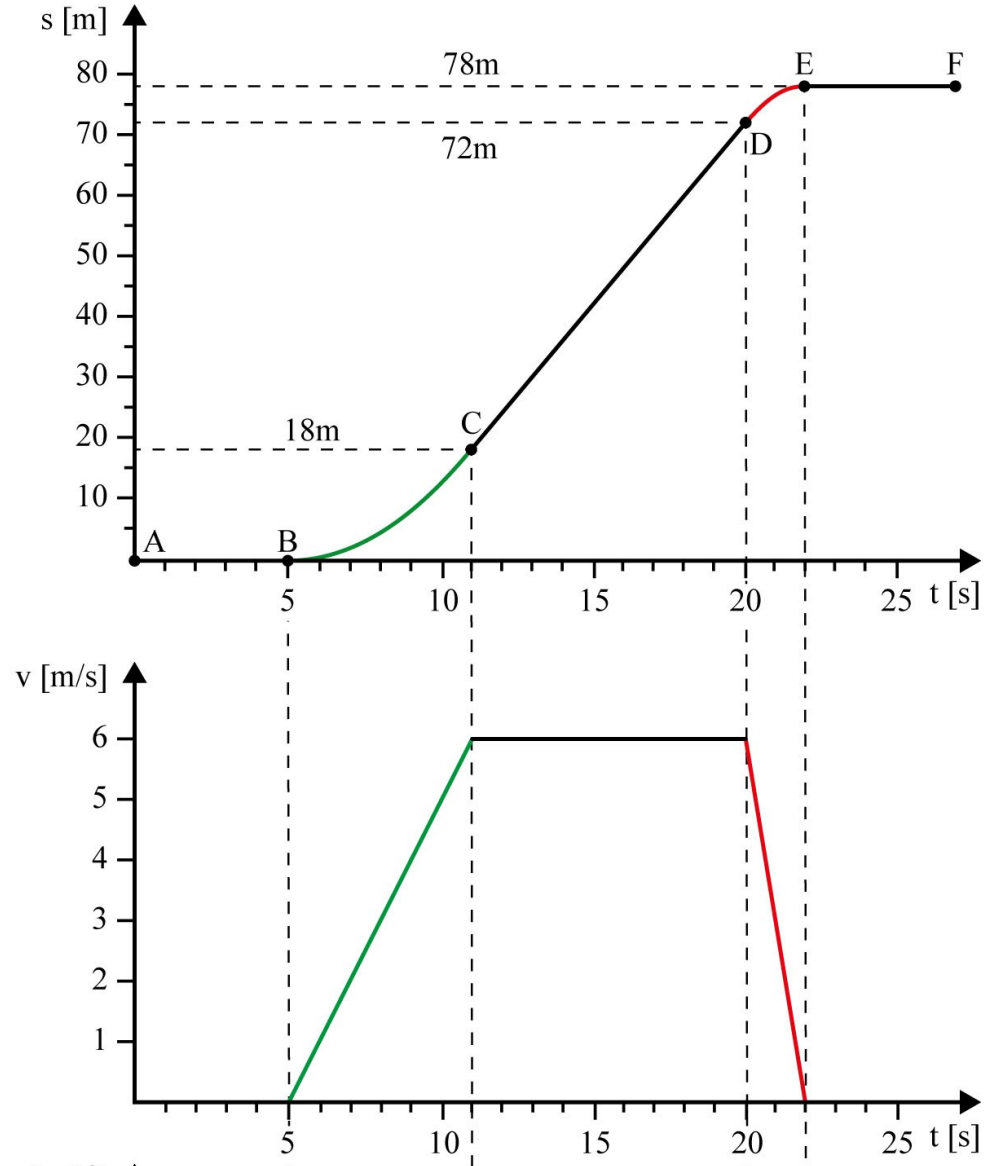
Dr. Hans-Günter Ludwig  
Wintersemester 2019/20

Kapitel 2:  
Differentialrechnung

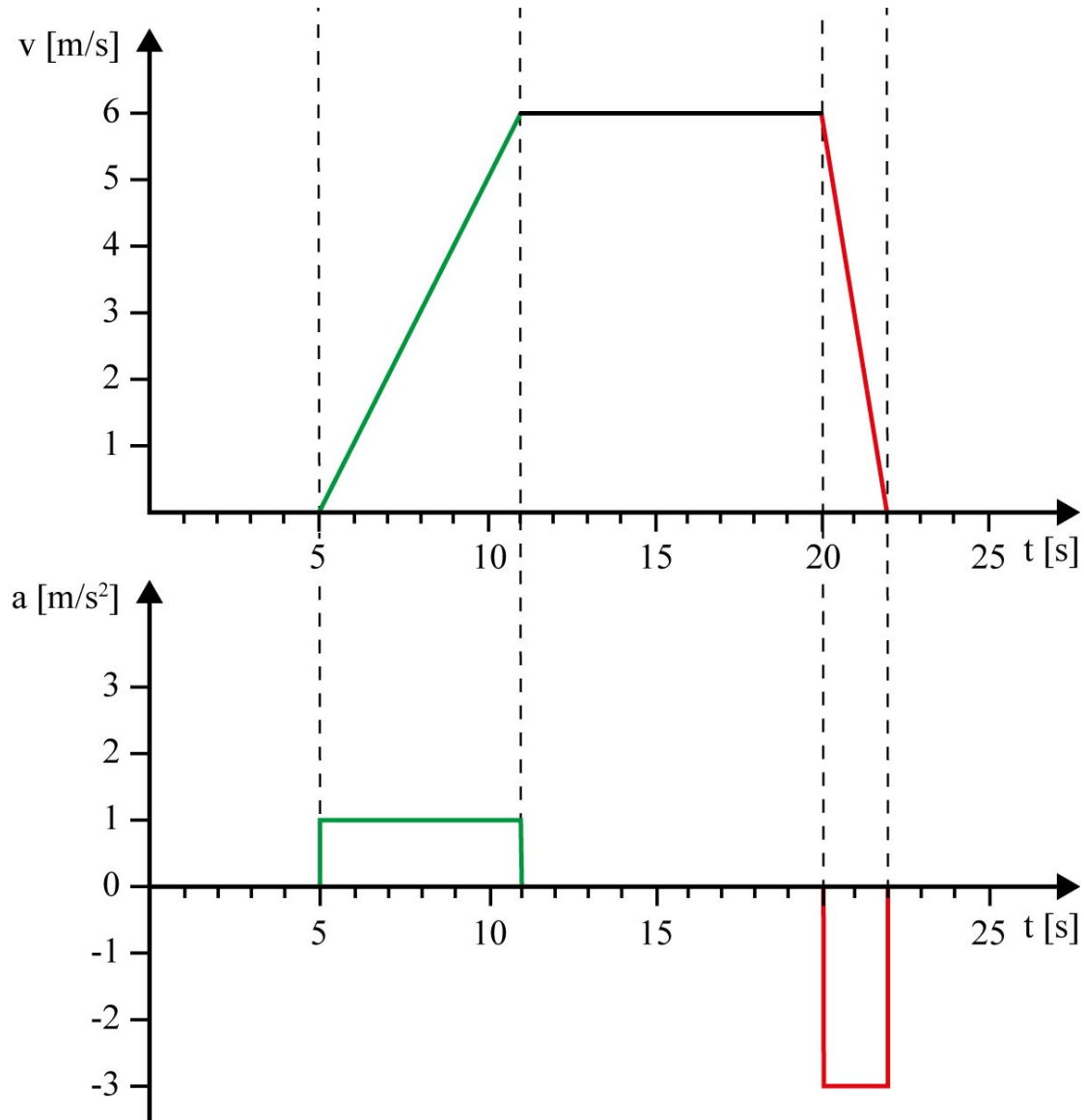
# Weg-Zeit-Diagramm



# Geschwindigkeits-Zeit-Diagramm

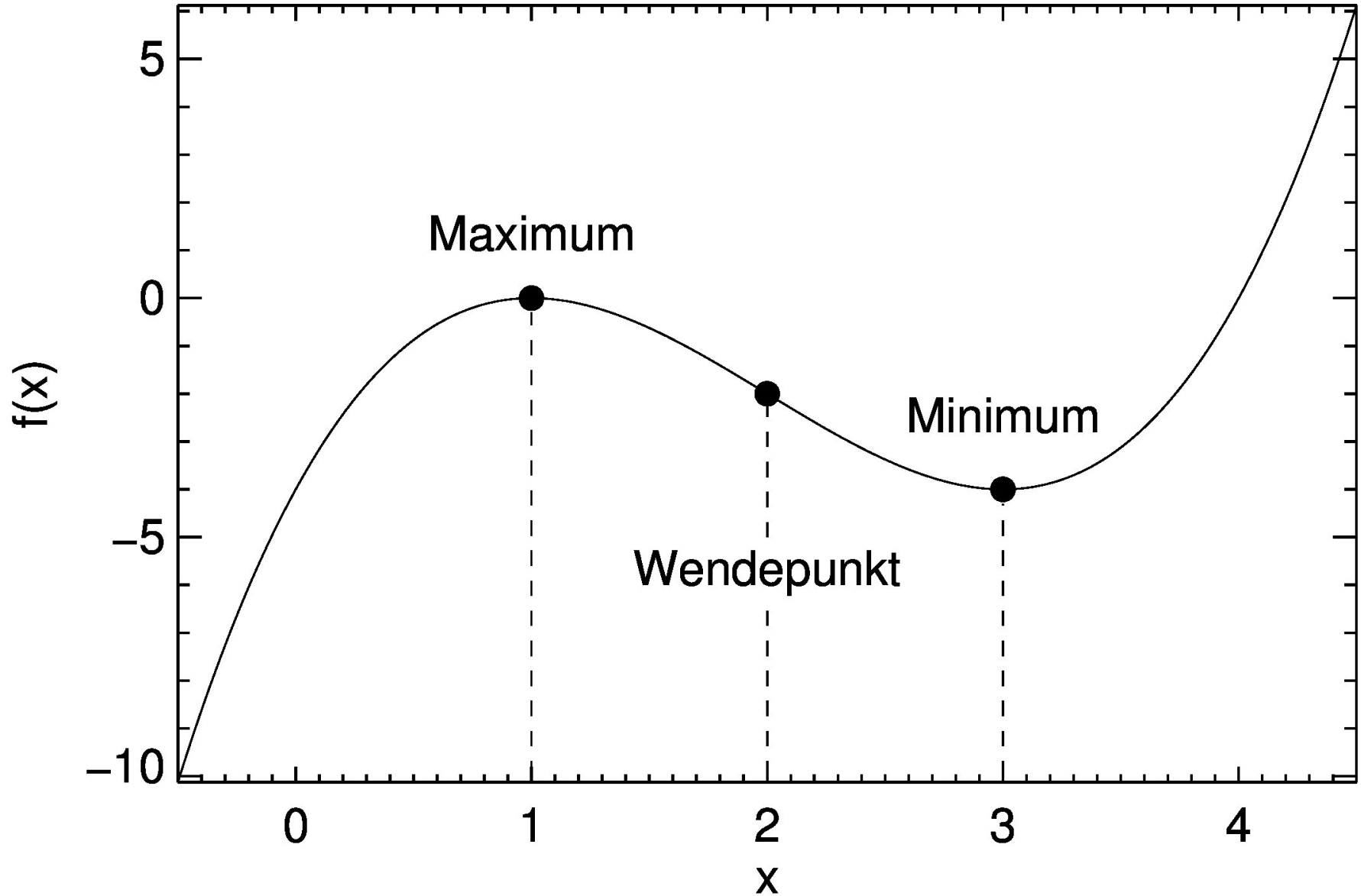


# Beschleunigungs-Zeit-Diagramm





# Kubische Funktion





A large brown bear is lying down on a grey, textured rock surface. The bear's head is resting on the left side of the rock, and its body extends towards the right. The bear's fur is thick and brown. A semi-transparent dark grey rectangular box is overlaid on the bear's midsection, containing the text "15 Minuten Pause!".

**15 Minuten Pause!**