A2 c) $\rightarrow$

$$6t - \frac{3}{2}tv = t\cdot\left(v^2 - v - 4v + 4\right)$$

$$6t - \frac{3}{2}tv = tv^2 - 5tv + 4t$$

$$0 = tv^2 - \frac{7}{2}tv - 2t$$

$$0 = t\cdot\left(v^2 - \frac{7}{2}v - 2\right) \qquad t \neq 0$$

$$v^2 - \frac{7}{2}v - 2 = 0$$

$$v_{1/2} = \frac{7}{4} \pm \sqrt{\frac{49}{16} + \frac{32}{16}}$$

$$v_{1/2} = \frac{7}{4} \pm \frac{9}{4}$$

$$\left(v_1 = 4\right) \quad \text{da } v < 1$$

$$\underline{\underline{v_2 = -\frac{1}{2}}}$$

$A''(-\frac{1}{2}) > 0$ Minimum ~~Maximum~~ (ohne Herleitung)

d)

$$\pi\int_{-1}^{1} 5^2\,dx - \pi\int_{-1}^{1}\left(\frac{x^2-16}{x^2-4}\right)^2 dx$$

GTR: $50\pi - 37{,}07\pi = 12{,}93\pi \approx 40{,}62$ VE