

$$\begin{aligned}
 s &= \int_1^2 v dt = \int_1^2 (t + 6t^2) dt = \left(\frac{t^2}{2} + 6 \cdot \frac{t^3}{3} \right) \Big|_1^2 = \left(\frac{2^2}{2} + 2 \cdot 2^3 \right) - \left(\frac{1^2}{2} + 2 \cdot 1^3 \right) = \\
 &= 18 - 2,5 = 15,5
 \end{aligned}$$