

$$\text{Nr. 17) a) } \int_{-1}^{3,3} 5x^2 dx - 10 \int_{-1}^{3,3} \frac{1}{2} x^2 = \int_{-1}^{3,3} (5x^2 - 5x^2) dx =$$

$$\int_{-1}^{3,3} 0 \cdot dx = \left[0 \cdot x \right]_{-1}^{3,3} = 0 \cdot 3,3 - 0 \cdot (-1) = \underline{\underline{0}}$$

$$\text{b) } \int_0^1 (x - 2\sqrt{x^2+4}) dx + 2 \int_0^1 \sqrt{x^2+4} dx =$$

$$\int_0^1 (\cancel{x - 2\sqrt{x^2+4}} + 2\sqrt{x^2+4}) dx = \int_0^1 x dx$$

$$= \left[\frac{x^2}{2} \right]_0^1 = \frac{1}{2} - 0 = \underline{\underline{\frac{1}{2}}}$$

$$\text{c) } \int_3^{3,7} \frac{1}{x} dx + \int_{3,7}^4 \frac{1}{x} dx = \int_3^4 \frac{1}{x} dx = \left[\ln(|x|) \right]_3^4$$

$$= \ln(4) - \ln(3) = \underline{\underline{\ln\left(\frac{4}{3}\right) \approx 0,2877}}$$