Nr. 18) a) $\int_0^z x\,dx = 18 \Rightarrow \left[\frac{x^2}{2}\right]_0^z = 18 \Rightarrow \frac{z^2}{2} - 0 = 18 \mid \cdot 2$

$\Rightarrow z^2 = 36 \Rightarrow \underline{\underline{z_1 = 6}}$ $(z_2 = -6)$ keine Lösung

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b) $\int_1^z 4x\,dx = 30 \Rightarrow \left[\frac{4}{2}x^2\right]_1^z = 30 \Rightarrow 2z^2 - 2 = 30 \mid +2$

$2z^2 = 32 \mid :2 \Rightarrow z^2 = 16 \Rightarrow \underline{\underline{z_1 = 4}}$ $(z_2 = -4)$ keine Lösung

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c) $\int_z^{10} 2x\,dx = 19 \Rightarrow \left[2\frac{x^2}{2}\right]_z^{10} = 19 \Rightarrow 100 - z^2 = 19$

$z^2 = 81 \Rightarrow z_1 = 9$ $(z_2 = -9)$ keine Lösung

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d) $\int_0^{2z} 0{,}4\,dx = -8 \Rightarrow \left[0{,}4x\right]_0^{2z} = 8 \Rightarrow 0{,}8z - 0 = 8 \mid :0{,}8$

$\underline{\underline{z = 10}}$

0. Fall