Oefeningen bepaalde integralen

Oefening 1. Bereken volgende bepaalde integralen:

1. $\displaystyle\int_0^{\frac{\pi}{2}} x \sin x \, dx = \ldots\ldots$
2. $\displaystyle\int_0^{\frac{\pi}{2}} \sin^2\theta \cos\theta \, d\theta = \ldots\ldots$
3. $\displaystyle\int_0^{1} xe^{2x} \, dx = \ldots\ldots$
4. $\displaystyle\int_0^{1} \frac{x}{(4+x^2)^2} \, dx = \ldots\ldots$
5. $\displaystyle\int_0^{2} \frac{2x+1}{\sqrt{x+1}} \, dx = \ldots\ldots$
6. $\displaystyle\int_0^{\pi} x^2 \cos 3x \, dx = \ldots\ldots$
7. $\displaystyle\int_0^{4} \frac{1}{1+\sqrt{x}} \, dx = \ldots\ldots$
8. $\displaystyle\int_0^{1} x^3 e^{-x^2} \, dx = \ldots\ldots$

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