

Codes:

- QUANC8, [link https://msekce.karlin.mff.cuni.cz/~dolejsi/Vyuka/NS_source/QUANC8.tgz](https://msekce.karlin.mff.cuni.cz/~dolejsi/Vyuka/NS_source/QUANC8.tgz)
- Q1DA, [link https://msekce.karlin.mff.cuni.cz/~dolejsi/Vyuka/NS_source/Q1DA.tgz](https://msekce.karlin.mff.cuni.cz/~dolejsi/Vyuka/NS_source/Q1DA.tgz)

Instalation:

- `tar xfz QUANC8.tgz`
- `make`

Integrals:

$$(I1) \quad \int_0^1 e^{x^2} dx$$

$$(I2) \quad \int_0^1 e^{-x^2} dx$$

$$(I3) \quad \int_0^2 \sin(10x) dx$$

$$(I4) \quad \int_0^2 \sin(100x) dx$$

$$(I5) \quad \int_1^{100} \ln x dx$$

$$(I6) \quad \int_0^1 \sqrt{x} \ln x dx$$

$$(I7) \quad \int_1^5 \frac{(x-1)^{1/5}}{x^2+1} dx$$

$$(I8) \quad \int_0^2 \frac{\sin x}{x} dx$$

$$(I9) \quad \int_0^2 \frac{\tan x}{x} dx$$

$$(I10) \quad \int_{-1}^1 \frac{1}{1+100x^2} dx$$

$$(I11) \quad \int_0^1 \frac{1}{\sqrt{x}} dx$$

$$(I12) \quad \int_{-200\,000}^{200\,000} x^2 \exp(-\frac{1}{2}x^2) dx$$

$$(I13) \quad \int_0^1 f(x) dx, \text{ where } f(x) = \begin{cases} \frac{1}{x+2} & 0 \leq x < e - 2 \\ 0 & e - 2 \leq x \leq 1 \end{cases}$$