

Calculate $\mu_\infty(\mathbf{A})$ when $\mathbf{A} = \begin{pmatrix} -3 & 2 & -8 & 4 \\ 4 & 2 & 2 & -6 \\ 1 & 1 & -4 & 1 \\ 2 & 0 & 1 & -3 \end{pmatrix}$

Answer: $\mu_\infty(\mathbf{A}) = 14$.

5. The equations

$$\begin{cases} x = x \exp(y) - \sin(x) + 0.09 \\ y = 0.1 \exp(x) - y^2 \end{cases}$$

have one solution in the neighbourhood of (0,0). Calculate this solution to 6 significant digits.

Answer: $x = 0.100832$, $y = 0.100507$.

6. A FORTRAN programmer cannot find the last remaining error in his program: he wants to write the text "3A" but surprisingly gets "(y)". In the control program below this error appears. Find the error and correct it.

```

INTEGER IS,RNI
DATA IS/2H3A/
RN1=IS
WRITE (5,100) RN1
100 FORMAT(1X,A2)
END

```

Answer: RN1 is not declared and thus becomes REAL. In the statement RN1=IS the INTEGER is converted into REAL format. The text is destroyed this way, RN1 has another configuration than IS. Replace RN1 by RNI.

ERRATUM

BIT 22: 4, p. 539, Problem 1:

for $x^2/a + 4/x = 1$ read $x^2/a - 4/x = 1$.