

**Příklad 2:**

Nalezněte všechny (lokální i globální) extrémy funkce  $f(x)$  na intervalu  $[-1, 1]$ , resp. v intervalu  $[2, 3]$ :

$$f(x) = \frac{x^2 - 1}{x^2 - 5x + 6}$$

x	f(x)
-10	
-9.9	
-9.8	
-9.7	
-9.6	
-9.5	
-9.4	
-9.3	
-9.2	
-9.1	
-9	
-8.9	
-8.8	
-8.7	
-8.6	
-8.5	
-8.4	
-8.3	
-8.2	
-8.1	
-8	
-7.9	
-7.8	
-7.7	
-7.6	
-7.5	
-7.4	
-7.3	
-7.2	
-7.1	
-7	
-6.9	
-6.8	
-6.7	
-6.6	
-6.5	
-6.4	
-6.3	
-6.2	
-6.1	
-6	
-5.9	

-5.8  
-5.7  
-5.6  
-5.5  
-5.4  
-5.3  
-5.2  
-5.1  
-5  
-4.9  
-4.8  
-4.7  
-4.6  
-4.5  
-4.4  
-4.3  
-4.2  
-4.1  
-4  
-3.9  
-3.8  
-3.7  
-3.6  
-3.5  
-3.4  
-3.3  
-3.2  
-3.1  
-3  
-2.9  
-2.8  
-2.7  
-2.6  
-2.5  
-2.4  
-2.3  
-2.2  
-2.1  
-2  
-1.9  
-1.8  
-1.7  
-1.6  
-1.5  
-1.4  
-1.3  
-1.2  
-1.1  
-1  
-0.9

-0.8  
-0.7  
-0.6  
-0.5  
-0.4  
-0.3  
-0.2  
-0.1  
-1.9E-14  
0.1  
0.2  
0.3  
0.4  
0.5  
0.6  
0.7  
0.8  
0.9  
1  
1.1  
1.2  
1.3  
1.4  
1.5  
1.6  
1.7  
1.8  
1.9  
2.1  
2.2  
2.3  
2.4  
2.5  
2.6  
2.7  
2.8  
2.9  
3.1  
3.2  
3.3  
3.4  
3.5  
3.6  
3.7  
3.8  
3.9  
4  
4.1  
4.2  
4.3

4.4

4.5

4.6

4.7

4.8

4.9

5

5.1

5.2

5.3

5.4

5.5

5.6

5.7

5.8

5.9

6

6.1

6.2

6.3

6.4

6.5

6.6

6.7

6.8

6.9

7

7.1

7.2

7.3

7.4

7.5

7.6

7.7

7.8

7.9

8

8.1

8.2

8.3

8.4

8.5

8.6

8.7

8.8

8.9

9

9.1

9.2

9.3

9.4  
9.5  
9.6  
9.7  
9.8  
9.9  
10

## Maticy

### Operace s maticemi

$$A = \begin{array}{|c|c|c|} \hline & x_1 & x_2 & x_3 \\ \hline 1 & | & | & | \\ \hline 4 & | & | & | \\ \hline 7 & | & | & | \\ \hline \end{array}$$

$$b = \begin{array}{|c|} \hline 5 \\ \hline 4 \\ \hline 2 \\ \hline \end{array}$$

Zkouška:  
 $Ax = \begin{array}{|c|} \hline \text{blue} \\ \hline \text{blue} \\ \hline \text{blue} \\ \hline \end{array}$

$$A^T = \begin{array}{|c|c|c|} \hline & & \\ \hline & & \\ \hline & & \\ \hline \end{array}$$

$$A * A^{-1} = \begin{array}{|c|c|c|} \hline & & \\ \hline & & \\ \hline & & \\ \hline \end{array}$$

$$A^{-1} = \begin{array}{|c|c|c|} \hline \text{yellow} & | & \text{yellow} \\ \hline \text{yellow} & | & \text{yellow} \\ \hline \text{yellow} & | & \text{yellow} \\ \hline \end{array}$$

$$x = A^{-1} b = \begin{array}{|c|} \hline \text{red} \\ \hline \text{red} \\ \hline \text{red} \\ \hline \end{array}$$

$$(A^{-1})^{-1} = \begin{array}{|c|c|c|} \hline & & \\ \hline & & \\ \hline & & \\ \hline \end{array}$$

$$A^{-1} * A = \begin{array}{|c|c|c|} \hline & & \\ \hline & & \\ \hline & & \\ \hline \end{array}$$

## Matrice

$x_1$

$x_2$

$x_3$

**Operace s maticemi 2**

	$x_1$	$x_2$	$x_3$	$x_4$
$A =$	5	8	1	2
	2	5	4	3
	6	8	1	4
	4	9	7	2

$A^{-1}$	=	<table border="1"><tr><td></td><td></td></tr><tr><td></td><td></td></tr><tr><td></td><td></td></tr><tr><td></td><td></td></tr><tr><td></td><td></td></tr></table>										

$b =$	<table border="1"><tr><td>1</td></tr><tr><td>8</td></tr><tr><td>7</td></tr><tr><td>3</td></tr></table>	1	8	7	3
1					
8					
7					
3					

Zkouška:	<table border="1"><tr><td></td></tr><tr><td></td></tr><tr><td></td></tr><tr><td></td></tr></table>				

$A^T =$	<table border="1"><tr><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td></tr></table>																

$A^*A^{-1} =$	<table border="1"><tr><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td></tr></table>																

$(A^{-1})^{-1} =$	<table border="1"><tr><td></td><td></td></tr><tr><td></td><td></td></tr><tr><td></td><td></td></tr><tr><td></td><td></td></tr></table>								

$A^{-1} * A =$	<table border="1"><tr><td></td><td></td></tr><tr><td></td><td></td></tr><tr><td></td><td></td></tr><tr><td></td><td></td></tr></table>								

## Matrice2


	$x_1$
	$x_2$
	$x_3$
	$x_4$

