**Wurzelgleichungen III**

Löse zuerst folgende Wurzelgleichungen. Finde den Begriff, indem du die Buchstaben den Lösungen zuordnest und danach die Reihenfolge der Buchstaben zusammenpuzzelst.

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **-24** | **-0,9** | **-8** | **-7** | **-6** | **0,45** | **4** | **-3** | **0,2** | **-11** |
| **R** | **P** | **G** | **K** | **H** | **O** | **D** | **M** | **C** | **I** |

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **16** | **24** | **3** | **12** | **45** | **6** | **7** | **14** | **11** | **10** |
| **L** | **A** | **E** | **X** | **S** | **F** | **E** | **N** | **F** | **B** |

+ = |² x + 6 + 2 + x – 1 = 4x + 9 |T

**L = {10}** 2x + 5+ 2 = 4x + 9 |-2x-5

**x + 6 0 x -6** 2 = 2x + 4 |:2

**x - 1 0 x 1**  = x + 2 |²

**D = R\{x|x 1}** x² + 5x – 6 = x² + 4x + 4 |-x²

5x – 6 = 4x + 4 |-4x+6

x = 10

- = |² x + 8 - 2 + x + 2 = 4x |-2x-10

**L = {0,45}** - 2 = 2x – 10 |:(-2)

**x + 8 0 x -8**  = -x + 5 |²

**x + 2 0 x -2**  x² + 10x + 16 = x²-10x+25 |-x²

**D = R\{x|x -2}**  10x + 16 = -10x + 25 |+10x-16

20x = 9 |:20

x = 0,45

= 6 + |² x + 25 = 36 + 12 + 25 – x |T

**L = {-24}** x + 25 = 61 + 12 - x |+x-61

**x + 25 0 x -25** 2x – 36 = 12 |:2

**25 – x 0 x 25** x – 18 = 6 |²

**D = R\{x|-25 x -2}** x² - 36x + 324 = 36(25 – x) |T

x² - 36x + 324 = 900 – 36x |+36x -900

x² - 576 = 0 |3.Binom

**(x + 24)(x – 24) = 0**

**x1 = -24 ~~x~~~~2~~ ~~= 24~~**

= - |² 16 - 8 + x + 36 = 70 – x |T

**L = {-11, 45}** 52 - 8 + x = 70 – x |-52-x

**x + 36 0 x -36** - 8 = 18 – 2x |²

**70 – x 0 x 70** 64(x + 36) = 324 – 72x + 4x² |T

**D = R\{x|-36 x 70}** 64x + 2304 = 4x² - 72x + 324 |-64x-2304

4x² - 136x – 1980 = 0 |:4

x² - 34x – 495 = 0

x1,2 = 17

**x1 = 45 x2 = - 11**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **B** | **0** | **R** | **I** | **S** |