|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Б) x4 |  -  | 2 | x2 |  -  | 2 |  = 0 |
|

Замена y = x2

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| y2 |  -  | 2 | y |  -  | 2 |  = 0 |
|

D = (-2)2 - 4·1·(-2) = 12

|  |  |  |
| --- | --- | --- |
| y1 =  | 2 - √12 |  ≈ -0.73205 |
| 2·1 |

|  |  |  |
| --- | --- | --- |
| y2 =  | 2 + √12 |  ≈ 2.7321 |
| 2·1 |

|  |  |
| --- | --- |
| x2 =  | 2 - √12 |
| 2 |

|  |  |
| --- | --- |
| x2 =  | 2 + √12 |
| 2 |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| x1 =  | ( | 2 + √12 | )1/2 |  ≈ 1.6529 |
| 2 |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| x2 =  | -( | 2 + √12 | )1/2 |  ≈ -1.6529 |
| 2 |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| А) x4 |  -  | 4 | x2 |  +  | 1 |  = 0 |
|

Сделаем замену y = x2

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| y2 |  -  | 4 | y |  +  | 1 |  = 0 |
|

D = (-4)2 - 4·1·1 = 12

|  |  |  |
| --- | --- | --- |
| y1 =  | 4 - √12 |  ≈ 0.26795 |
| 2·1 |

|  |  |  |
| --- | --- | --- |
| y2 =  | 4 + √12 |  ≈ 3.7321 |
| 2·1 |

|  |  |
| --- | --- |
| x2 =  | 4 - √12 |
| 2 |

|  |  |
| --- | --- |
| x2 =  | 4 + √12 |
| 2 |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| x1 =  | ( | 4 - √12 | )1/2 |  ≈ 0.51764 |
| 2 |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| x2 =  | -( | 4 - √12 | )1/2 |  ≈ -0.51764 |
| 2 |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| x3 =  | ( | 4 + √12 | )1/2 |  ≈ 1.9319 |
| 2 |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| x4 =  | -( | 4 + √12 | )1/2 |  ≈ -1.9319 |
| 2 |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| В) x4 |  +  | 4 | x2 |  +  | 1 |  = 0 |
|

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| y2 |  +  | 4 | y |  +  | 1 |  = 0 |
|

*D = 42 - 4·1·1 = 12*

|  |  |  |
| --- | --- | --- |
| y1 =  | -4 - √12 |  ≈ -3.7321 |
| 2·1 |

|  |  |  |
| --- | --- | --- |
| y2 =  | -4 + √12 |  ≈ -0.26795 |
| 2·1 |

|  |  |
| --- | --- |
| x2 =  | -4 - √12 |
| 2 |

|  |  |
| --- | --- |
| x2 =  | -4 + √12 |
| 2 |

**Ответ**: уравнение не имеет корней.