Задача 1

Источник гармонических колебаний.

**Вариант 1**



|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 1 | e3 | e4 | E6 | J2 | R2 | R4 | L5 | C1 | C3 | C4 | C5 |
|  |  |  | 100j | 1+j | 40 | 100 | 300 | 10 | 20 | 5 | 2 |

Единицы измерений:e [В], J [А], R [Ом], L [мГн], C [мкФ].

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**Вариант 2**



|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 2 | E1 | E5 | e6 | J2 | R1 | R3 | R6 | L1 | L4 | C2 |
|  | -100+200j | -100j |  |  | 40 | 20 | 50 | 20 | 20 | 20 |

Единицы измерений:e [В], J [А], R [Ом], L [мГн], C [мкФ].

**Вариант 3**



|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 3 | e2 | E4 | E6 | J1 | R6 | L1 | L2 | L3 | L5 | L6 | C3 | C5 |
|  |  | -400 | 400-200j | 2+4j | 100 | 100 | 350 | 400 | 110 | 200 | 2 | 100 |

Единицы измерений:e [В], J [А], R [Ом], L [мГн], C [мкФ].

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**Вариант 4**



|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 4 | e2 | E4 | e6 | J1 | R1 | R6 | L2 | L3 | L5 | L6 | C3 | C5 |
|  |  | 100+100j |  | -1+3j | 100 | 0 | 20 | 400 | 110 | 300 | 2 | 100 |

Единицы измерений:e [В], J [А], R [Ом], L [мГн], C [мкФ].

**Вариант 5**



|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 5 | E2 | E4 | e6 | J1 | R1 | R2 | L2 | L5 | L6 | C2 | C3 | C5 |
|  | -100+200j | 100j |  |  | 100 | 100 | 50 | 300 | 50 |  | 10 | 20 |

Единицы измерений:e [В], J [А], R [Ом], L [мГн], C [мкФ].

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**Вариант 6**



|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 6 | e2 | E3 | E4 | J5 | R1 | R2 | R5 | L1 | L2 | L3 | L6 | C1 |
| В |  | -300+300j | -600j |  | 100 | 200 | 50 | 10 | 100 | 100 | 100 | 100 |

Единицы измерений:e [В], J [А], R [Ом], L [мГн], C [мкФ].

**Вариант 7**



|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 7 | E1 | E5 | e6 | J2 | R1 | R3 | R6 | L1 | L3 | C2 | C3 | C4 |
|  |  | 200-200j |  | -5+5j | 10 | 20 | 100 | 20 | 10 | 2 | 100 | 50 |

Единицы измерений:e [В], J [А], R [Ом], L [мГн], C [мкФ].

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**Вариант 8**



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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 8 | E1 | E4 | E5 | J6 | R3 | R4 | L2 | L3 | L4 | L5 | L6 | C3 |
|  | -300+300j | 700j |  | 4-3j | 200 | 100 | 50 | 500 | 100 | 200 | 200 | 2 |

Единицы измерений:e [В], J [А], R [Ом], L [мГн], C [мкФ].

**Вариант 9**



|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 9 | e2 | e4 | E5 | J3 | R3 | R4 | L1 | L2 | C1 | C4 | C6 |
|  |  |  | -100j | 1-j | 200 | 200 | 100 | 100 | 10 |  | 10 |

Единицы измерений:e [В], J [А], R [Ом], L [мГн], C [мкФ].

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**Вариант 10**



|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 10 | E2 | e4 | e6 | J5 | R3 | R6 | L1 | L4 | L5 | L6 | C1 |
|  | -200-200j |  |  | 2+2j | 200 | 150 | 200 | 200 | 100 | 100 | 5 |

Единицы измерений:e [В], J [А], R [Ом], L [мГн], C [мкФ].

**Вариант 11**



|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 11 | e1 | e2 | E5 | J6 | R1 | R2 | R6 | L1 | L3 | C1 | C3 | C4 |
|  |  |  | 200 | -1-2j | 100 | 200 | 100 | 100 | 300 | 10 | 5 | 10 |

Единицы измерений:e [В], J [А], R [Ом], L [мГн], C [мкФ].

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**Вариант 12**



|  |  |  |  |  |  |  |  |  |  |  |  |  |
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| 12 | E1 | e5 | e6 | J4 | R2 | R4 | R6 | L2 | L3 | L6 | C2 | C5 |
|  | 200j |  |  | 1-3j | 200 | 50 | 100 | 200 | 100 | 100 | 2 | 40 |

Единицы измерений:e [В], J [А], R [Ом], L [мГн], C [мкФ].

**Вариант 13**



|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 13 | e1 | E5 | E6 | J2 | R1 | R2 | R6 | L3 | L6 | C3 | C4 | C6 |
|  |  | 200 |  | -2+2j | 100 | 100 | 200 | 200 | 50 | 5 | 10 | 20 |

Единицы измерений:e [В], J [А], R [Ом], L [мГн], C [мкФ].

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**Вариант 14**



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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 14 | e1 | E4 | E5 | J3 | R2 | R4 | L1 | L2 | L3 | L4 | L6 | C2 |
|  |  | 200-300j | -200-300j |  | 40 | 40 | 50 | 500 | 30 | 20 | 20 | 10 |

Единицы измерений:e [В], J [А], R [Ом], L [мГн], C [мкФ].

**Вариант 15**



|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 15 | E3 | E4 | e6 | J5 | R3 | R5 | R6 | L1 | L3 | L6 | C1 | C2 | C3 |
|  | 100-100j | 100+100j |  |  | 800 | 100 | 50 | 300 | 250 | 50 | 2 | 10 | 4 |

Единицы измерений:e [В], J [А], R [Ом], L [мГн], C [мкФ].

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**Вариант 16**



|  |  |  |  |  |  |  |  |  |  |  |  |  |
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| 16 | E2 | E4 | e6 | J1 | R1 | R2 | L2 | L5 | L6 | C2 | C3 | C5 |
|  | -100-200j | 100j |  |  | 50 | 100 | 100 | 350 | 50 | 10/3 | 10 | 4 |

Единицы измерений:e [В], J [А], R [Ом], L [мГн], C [мкФ].

**Вариант 17**



|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 17 | E2 | e4 | e6 | J5 | R3 | R6 | L1 | L4 | L5 | L6 | C1 |
|  | -400j |  |  | 2j | 200 | 100 | 60 | 150 | 100 | 100 | 100 |

Единицы измерений:e [В], J [А], R [Ом], L [мГн], C [мкФ].

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**Вариант 18**



|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 18 | E3 | E4 | e6 | J5 | R3 | R5 | R6 | L1 | L3 | L6 | C1 | C2 | C3 |
|  | -200-200j | 100+100j |  |  | 200 | 100 | 50 | 200 | 50 | 50 | 5 | 10 | 20 |

Единицы измерений:e [В], J [А], R [Ом], L [мГн], C [мкФ].

**Вариант 19**



|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 19 | e3 | e4 | E6 | J2 | R2 | R4 | L5 | C1 | C3 | C4 | C5 |
|  |  |  | 100j | 1-j | 100 | 100 | 200 | 10 | 10 |  | 10/3 |

Единицы измерений:e [В], J [А], R [Ом], L [мГн], C [мкФ].

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**Вариант 20**



|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 20 | e2 | E3 | E4 | J5 | R1 | R2 | R5 | L1 | L2 | L3 | L6 | C2 |
|  |  | -45+45j | 300-900j |  | 100 | 100 | 25 | 25 | 0 | 15 | 100 | 200/3 |

Единицы измерений:e [В], J [А], R [Ом], L [мГн], C [мкФ].

**Вариант 21**



|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 21 | e1 | e2 | E5 | J6 | R1 | R2 | R6 | L1 | L3 | C1 | C3 | C4 |
|  |  |  | 200 | -2-2j | 50 | 200 | 100 | 50 | 200 | 20/3 | 10 | 10 |

Единицы измерений:e [В], J [А], R [Ом], L [мГн], C [мкФ].

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**Вариант 22**



|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 22 | E1 | E5 | e6 | J2 | R1 | R3 | R6 | L1 | L4 | C2 |
|  | 100-200j | 100+100j |  |  | 20 | 20 | 10 | 10 | 20 | 10 |

Единицы измерений:e [В], J [А], R [Ом], L [мГн], C [мкФ].

**Вариант 23**



|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 23 | e1 | E5 | e6 | J2 | R1 | R3 | R6 | L1 | L3 | C2 | C3 | C4 |
|  |  | -300j |  | 5+10j | 40 | 20 | 80 | 10 | 15 | 4 | 200/3 | 50 |

Единицы измерений:e [В], J [А], R [Ом], L [мГн], C [мкФ].

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**Вариант 24**



|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 24 | e1 | E5 | e6 | J2 | R1 | R2 | R6 | L3 | L6 | C3 | C4 | C6 |
|  |  | 200 |  | -4+2j | 100 | 60 | 100 | 150 | 150 | 20/3 | 10 | 5 |

Единицы измерений:e [В], J [А], R [Ом], L [мГн], C [мкФ].

**Вариант 25**



|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 25 | e2 | E4 | E6 | J1 | R6 | L1 | L2 | L3 | L5 | L6 | C3 | C5 |
|  |  | 200 | 400+200j | 2j | 200 | 100 | 30 | 200 | 115 | 100 | 10/3 | 200/3 |

Единицы измерений:e [В], J [А], R [Ом], L [мГн], C [мкФ].

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**Вариант 26**



|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 26 | e1 | E4 | E5 | J3 | R2 | R4 | L1 | L2 | L3 | L4 | L6 | C2 |
|  |  | -100 | -200+100j |  | 40 | 20 | 20 | 10 | 20 | 40 | 20 | 100 |

Единицы измерений:e [В], J [А], R [Ом], L [мГн], C [мкФ].

**Вариант 27**



|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 27 | E1 | E4 | e5 | J6 | R3 | R4 | L2 | L3 | L4 | L5 | L6 | C3 |
|  | -700-300j | -200j |  | 4+3j | 200 | 200 | 200 | 300 | 100 | 100 | 100 | 10/3 |

Единицы измерений:e [В], J [А], R [Ом], L [мГн], C [мкФ].

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**Вариант 28**



|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 28 | e2 | E4 | e6 | J1 | R1 | R6 | L2 | L3 | L5 | L6 | C3 | C5 |
|  |  | -300j |  | 6 | 200 | 100 | 200 | 200 | 115 | 0 | 10/3 | 200/3 |

Единицы измерений:e [В], J [А], R [Ом], L [мГн], C [мкФ].

**Вариант 29**



|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 29 | E1 | e5 | e6 | J4 | R2 | R4 | R6 | L2 | L3 | L6 | C2 | C5 |
|  | 200 |  |  | 1-j | 200 | 100 | 200 | 200 | 100 | 100 | 10/3 | 40/3 |

Единицы измерений:e [В], J [А], R [Ом], L [мГн], C [мкФ].

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**Вариант 30**



|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 30 | e2 | e4 | E5 | J3 | R3 | R4 | L1 | L2 | C1 | C4 | C6 |
|  |  |  | -100j | -1+2j | 200 | 200 | 200 | 200 |  | 20 | 10 |

Единицы измерений:e [В], J [А], R [Ом], L [мГн], C [мкФ].