**Дифференциальные уравнения**

**Задания: в задачах 1­ ─ 6 решить дифференциальные уравнения первого порядка (при заданных начальных условиях найти частное решение); в задаче 7 решить дифференциальное уравнение высшего порядка; в задаче 8 найти решение задачи Коши однородного дифференциального уравнения второго порядка с постоянными коэффициентами.**

**Вариант 1**

|  |  |  |  |
| --- | --- | --- | --- |
| 1. | . | 2. | ,  . |
| 3. |  | 4. | . |
| 5. |  | 6. | . |
| 7. |  | 8. | , . |

**Вариант 2**

|  |  |  |  |
| --- | --- | --- | --- |
| 1. |  | 2. | ,  . |
| 3. |  | 4. | , . |
| 5. |  | 6. |  |
| 7. |  | 8. | , . |

**Вариант 3**

|  |  |  |  |
| --- | --- | --- | --- |
| 1. |  | 2. | ,. |
| 3. |  | 4. | , . |
| 5. |  | 6. | . |
| 7. |  | 8. | , . |

**Вариант 4**

|  |  |  |  |
| --- | --- | --- | --- |
| 1. |  | 2. | , . |
| 3. |  | 4. | , . |
| 5. |  | 6. | . |
| 7. |  | 8. | , . |

**Вариант 5**

|  |  |  |  |
| --- | --- | --- | --- |
| 1. |  | 2. | , . |
| 3. |  | 4. | , . |
| 5. | . | 6. | . |
| 7. |  | 8. | , . |

**Вариант 6**

|  |  |  |  |
| --- | --- | --- | --- |
| 1. | . . | 2. | , . |
| 3. |  | 4. | , . |
| 5. |  | 6. | . |
| 7. |  | 8. | , . |

**Вариант 7**

|  |  |  |  |
| --- | --- | --- | --- |
| 1. |  | 2. | ,  . |
| 3. | . | 4. | , . |
| 5. |  | 6. | . |
| 7. |  | 8. | , . |

**Вариант 8**

|  |  |  |  |
| --- | --- | --- | --- |
| 1. |  | 2. | , . |
| 3. |  | 4. | , . |
| 5. |  | 6. | . |
| 7. | . | 8. | , . |

**Вариант 9**

|  |  |  |  |
| --- | --- | --- | --- |
| 1. |  | 2. | , . |
| 3. |  | 4. | , . |
| 5. |  | 6. | . |
| 7. |  | 8. | , . |

**Вариант 10**

|  |  |  |  |
| --- | --- | --- | --- |
| 1. |  | 2. | , . |
| 3. |  | 4. | , . |
| 5. |  | 6. | . |
| 7. |  | 8. | , . |

**Вариант 11**

|  |  |  |  |
| --- | --- | --- | --- |
| 1. |  | 2. | ,  . |
| 3. |  | 4. | , . |
| 5. | . | 6. | . |
| 7. |  | 8. | , . |

**Вариант 12**

|  |  |  |  |
| --- | --- | --- | --- |
| 1. |  | 2. | ,  . |
| 3. |  | 4. | , . |
| 5. |  | 6. | . |
| 7. |  | 8. | , . |

**Вариант 13**

|  |  |  |  |
| --- | --- | --- | --- |
| 1. |  | 2. | , . |
| 3. |  | 4. | , . |
| 5. |  | 6. |  |
| 7. |  | 8. | , . |

**Вариант 14**

|  |  |  |  |
| --- | --- | --- | --- |
| 1. |  | 2. | ,  . |
| 3. |  | 4. | , . |
| 5. |  | 6. | . |
| 7. |  | 8. | ,  . |

**Вариант 15**

|  |  |  |  |
| --- | --- | --- | --- |
| 1. |  | 2. | , . |
| 3. |  | 4. | , . |
| 5. |  | 6. | . |
| 7. |  | 8. | , . |

**Вариант 16**

|  |  |  |  |
| --- | --- | --- | --- |
| 1. |  | 2. | , . |
| 3. |  | 4. | ,. |
| 5. |  | 6. | . |
| 7. |  | 8. | , . |

**Вариант 17**

|  |  |  |  |
| --- | --- | --- | --- |
| 1. |  | 2. | , . |
| 3. |  | 4. | , . |
| 5. |  | 6. | . |
| 7. |  | 8. | , . |

**Вариант 18**

|  |  |  |  |
| --- | --- | --- | --- |
| 1. |  | 2. | , . |
| 3. |  | 4. | , . |
| 5. |  | 6. | . |
| 7. |  | 8. | , . |

**Вариант 19**

|  |  |  |  |
| --- | --- | --- | --- |
| 1. |  | 2. | , . |
| 3. |  | 4. | , . |
| 5. |  | 6. | . |
| 7. |  | 8. | , . |

**Вариант 20**

|  |  |  |  |
| --- | --- | --- | --- |
| 1. |  | 2. | , . |
| 3. |  | 4. | , . |
| 5. |  | 6. | . |
| 7. |  | 8. | , . |

**Вариант 21**

|  |  |  |  |
| --- | --- | --- | --- |
| 1. |  | 2. | , . |
| 3. | . | 4. | , . |
| 5. |  | 6. |  |
| 7. |  | 8. | , . |

**Вариант 22**

|  |  |  |  |
| --- | --- | --- | --- |
| 1. |  | 2. | , . |
| 3. | . | 4. | . |
| 5. |  | 6. |  |
| 7. |  | 8. | , . |

**Вариант 23**

|  |  |  |  |
| --- | --- | --- | --- |
| 1. |  | 2. | , . |
| 3. | . | 4. | . |
| 5. |  | 6. |  |
| 7. |  | 8. | , . |

**Вариант 24**

|  |  |  |  |
| --- | --- | --- | --- |
| 1. |  | 2. | , . |
| 3. | . | 4. | . |
| 5. |  | 6. |  |
| 7. |  | 8. | , . |

**Вариант 25**

|  |  |  |  |
| --- | --- | --- | --- |
| 1. |  | 2. | , . |
| 3. | . | 4. | . |
| 5. |  | 6. | . |
| 7. |  | 8. | , . |

**Вариант 26**

|  |  |  |  |
| --- | --- | --- | --- |
| 1. |  | 2. | , . |
| 3. |  | 4. | . |
| 5. |  | 6. | . |
| 7. | . | 8. | , . |

**Вариант 27**

|  |  |  |  |
| --- | --- | --- | --- |
| 1. |  | 2. | , . |
| 3. |  | 4. |  |
| 5. |  | 6. | . |
| 7. |  | 8. | , . |

**Вариант 28**

|  |  |  |  |
| --- | --- | --- | --- |
| 1. |  | 2. | . |
| 3. |  | 4. |  |
| 5. |  | 6. | . |
| 7. |  | 8. | , . |

**Вариант 29**

|  |  |  |  |
| --- | --- | --- | --- |
| 1. |  | 2. | , . |
| 3. |  | 4. |  |
| 5. |  | 6. | . |
| 7. |  | 8. | , . |

**Вариант 30**

|  |  |  |  |
| --- | --- | --- | --- |
| 1. |  | 2. | , . |
| 3. |  | 4. |  |
| 5. |  | 6. | . |
| 7. |  | 8. | , . |