**Итоговая контрольная работа по алгебре**

**обучающего(ей)ся 9 класса**

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**Вариант 1**

**Часть А**

*К каждому заданию этой части даны 4 варианта ответа, из которых только один верный. Запишите цифру, которая обозначает номер выбранного ответа*

A1. Какое из чисел является корнем уравнения х3+3х2+3х+1=0?

 1) 1; 2) 0; 3)-1; 4) 2.

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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| Ответ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

A2. Решением системы уравнений  является пара чисел

 1) (1;2); 2) (2;1) 3(-1;2); 4) (-1;-2).

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| Ответ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

A3. Сколько корней имеет уравнение х(х-1)(х-2)(х-3)(х+4) = 0?

 1) 5: 2) 2; 3) 4; 4)6.

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| Ответ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

А4. Вычислите .

 1) 6; 2) 4; 3) -5; 4) -4.

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| Ответ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

А5.Упростите выражение .

 1) *а;*  2) *а2;*  3) *а0,5;*  4) *а-1.*

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| Ответ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

А6. Четвёртый член арифметической прогрессии 13; 9: … равен

 1) 1; 2) 6; 3) -1; 4) 0.

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| Ответ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

А7. В геометрической прогрессии *в*1=2, q =3. Найдите *в*5.

 1)162; 2) 180; 3)324; 4) 81.

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| Ответ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

**Часть В**

*К каждому заданию этой части записать краткий ответ*

В1. Найдите значение выражения 41,5 -  .

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| Ответ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

В2. В фирме такси в данный момент свободно 35 машин: 11 красных, 17 фиолетовых и 7 зеленых. По вызову выехала одна из машин, случайно оказавшаяся ближе всего к заказчице. Найдите вероятность того, что к ней приедет зеленое такси.

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| Ответ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

**Часть С**

*Решения заданий этой части напишите аккуратно и разборчиво*

С1. Разность двух положительных чисел равна 20, а их произведение равно 96. Найдите эти числа.

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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| Решение |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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| Ответ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

С2. Решите уравнение $3x^{4}-13x^{2}+4=0$

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| Решение |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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| Ответ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

**Шкала оценивания итогового теста за 9 класс**

Задания **части А** -1 балл (алгебра-7), задания **части В1, В2 -**2 балла (алгебра -2), **С1, С2** -2 балла (алгебра-2). Максимальный балл -29.

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| --- | --- | --- | --- |
| **оценка «2»** | **оценка «3»** | **оценка «4»** | **оценка «5»** |
| **алгебра** |
| **0-5** | **6-8** | **9-11** | **12-15** |

**Итоговая контрольная работа по алгебре**

**обучающего(ей)ся 9 класса**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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| И |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

**Вариант 2**

**Часть А**

*К каждому заданию этой части даны 4 варианта ответа, из которых только один верный. Запишите цифру, которая обозначает номер выбранного ответа*

A1. Какое из чисел является корнем уравнения х3-3х2+3х -1=0?

 1) 1; 2) 0; 3)-1; 4) 2.

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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| Ответ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

A2. Решением системы уравнений  является пара чисел

 1) (1;2); 2) (2;-1) 3(-1;2); 4) (-1;-2).

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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| Ответ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

A3. Сколько корней имеет уравнение х(х+1)(х-2)(х-3)(х+4)(х+5) = 0?

 1) 5: 2) 2; 3) 4; 4)6.

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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| Ответ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

А4.Вычислите 

 1)-10; 2) -9; 3)-10,5; 4) -9,5.

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| Ответ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

А5.Упростите выражение .

 1) *а;*  2) *а2;*  3) *а0,5;*  4) *а-1.*

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| Ответ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

А6. Первый член арифметической прогрессии а1; а2; 4; 8; … равен

 1) 1; 2) 12; 3) -4; 4)-1.

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| Ответ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

А7. В геометрической прогрессии *в*1=3, q =2. Найдите *в*6.

 1) 96; 2) 48; 3) 36; 4)192.

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| Ответ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

**Часть В**

*К каждому заданию этой части записать краткий ответ*

В1. Найдите значение выражения - .

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|  Ответ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

В2. На семинар приехали 3 ученых из Норвегии, 3 из России и 4 из Испании. Порядок докладов определяется жеребьёвкой. Найдите вероятность того, что первым окажется доклад ученого из России.

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| Ответ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

**Часть С**

*Решения заданий этой части напишите аккуратно и разборчиво*

 С 1. Сумма двух чисел равна 20, а их произведение равно 96. Найдите эти числа.

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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| Решение |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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| Ответ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

С2. Решите уравнение $2x^{4}-19x^{2}+9=0$

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| Решение |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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| Ответ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

**Шкала оценивания итогового теста за 9 класс**

Задания **части А** -1 балл (алгебра-7), задания **части В1, В2 -**2 балла (алгебра -2), **С1, С2** -2 балла (алгебра-2). Максимальный балл -29.

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| **оценка «2»** | **оценка «3»** | **оценка «4»** | **оценка «5»** |
| **алгебра** |
| **0-5** | **6-8** | **9-11** | **12-15** |