**Характеристика заданий суммативного оценивания за 1 четверть**

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| **Раздел** | **Проверяемая цель** | **Уровень мыслительных навыков** |
| **Степень с целым показателем** | 7.4.2.3 оценивать, как изменяются площадь квадрата и объём куба при изменении их линейных размеров | Навыки высокого порядка |
| 7.2.1.1 применять свойства степени с целым показателем при нахождении значений числовых выражений | Применение |
| 7.1.1.1 записывать числа в стандартном виде | Применение |
| 7.1.2.7 выполнять арифметические действия над числами, записанными в стандартном виде | Применение |
| **Многочлены** | 7.2.1.2 знать определение одночлена, находить его коэффициент и степень | Знание и понимание |
| 7.2.1.6 приводить многочлен к стандартному виду | Применение |
| 7.2.1.7 выполнять сложение и вычитание многочленов | Применение |
| 7.2.1.5 знать определение многочлена и находить его степень | Знание и понимание |
| 7.2.1.12 раскладывать алгебраические выражения на множители вынесением общего множителя за скобки и способом группировки | Применение |
| 7.2.1.13 выполнять тождественные преобразования алгебраических выражений с помощью действий над многочленами, разложения многочлена на множители | Применение |
| **ИТОГО:** |  | **20** |

Ф.И.\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ класс 7 «\_\_\_\_\_»

Суммативное оценивание за 1 четверть **1 вариант**

1. Среди представленных в таблице алгебраических выражений найдите одночлены. Запишите их в стандартном виде, укажите степень и коэффициент.

|  |  |  |  |
| --- | --- | --- | --- |
| **Алгебраические выражения** | **Стандартный вид одночлена** | **Коэффициент одночлена** | **Степень одночлена** |
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|  |  |  |  |
|  |  |  |  |

2. Запишите математичекую модель задачи. Упростите полученные выражения.

На рисунке представлен план дачного участка. Найдите площадь закрашенной области.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  | 6а-5 |  |  |
|  |  |  |  |  |
|  |  |  | 5а |  |
|  |  |  |  |  |
| 4а |  | 2в |  |  |
|  |  |  |  |  |

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3. Запишите числа а= 2100000 и в=0,0007 в стандартном виде и найдите их произведение.

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. 4. Объем спальных комнат дома равен 3600 кубических метров. Известно, что на каждый кубический метр приходится 5,9\*109 частиц пыли. Определить сколько пыли присутствует во всех комнатах. Ответ записать в стандартном виде.

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5. Вычислить) =\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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ДЕСКРИПТОРЫ

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| № |  | балл |
| 1 | .- определяет одночлены | 1 |
| записывает одночлены в стандартном виде; | 1 |
| - находит коэффициент одночлена | 1 |
| - записывает степень одночлена | 1 |
| 2 | - использует формулу площади прямоугольника- | 1 |
| составляет выражение для нахождения площади; | 1 |
| выполняет умножение | 1 |
| записывает упрощенное выражение. | 1 |
| 3 | Записывает стандартный вид 1 числа | 1 |
| Записывает стандартный вид 2 числа | 1 |
| Находит произведение чисел | 1 |
| - записывает ответ в стандартном виде | 1 |
| 4 | Переводят объем в стандартный вид | 1 |
| Выполняют умножение одночленов | 1 |
| Записывают ответ в стандартном виде | 1 |
| 5 | определяет порядок действий | 1 |
| применяет свойства степени для преобразования выражений | 1 |
| определяет значение нулевой степени | 1 |
| выполняет сложение и вычитание | 1 |
| находит ответ | 1 |
|  | всего | 20 |

Ф.И.\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ класс 7 «\_\_\_\_\_»

Суммативное оценивание за 1 четверть **2 вариант**

1. Среди представленных в таблице алгебраических выражений найдите одночлены. Запишите их в стандартном виде, укажите степень и коэффициент.

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| --- | --- | --- | --- |
| **Алгебраические выражения** | **Стандартный вид одночлена** | **Коэффициент одночлена** | **Степень одночлена** |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |

2.Запишите математичекую модель следующих задач. Упростите полученные выражения.

На рисунке представлен план дачного участка. Найдите площадь закрашенной области.

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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| |  |  |  |  |  | | --- | --- | --- | --- | --- | |  |  |  | с+3в |  | |  |  |  |  |  | |  |  |  |  |  | |  |  |  | 2с |  | | 6в |  |  |  |  | |  |  | в |  |  | |  |

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3.Запишите числа а= 625000000 и в=0,000003 в стандартном виде и найдите их произведение

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5 Вычислить:. =\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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ДЕСКРИПТОРЫ

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| № |  | балл |
| 1 | .- определяет одночлены | 1 |
| записывает одночлены в стандартном виде; | 1 |
| - находит коэффициент одночлена | 1 |
| - записывает степень одночлена | 1 |
| 2 | - использует формулу площади прямоугольника- | 1 |
| составляет выражение для нахождения площади; | 1 |
| выполняет умножение | 1 |
| записывает упрощенное выражение. | 1 |
| 3 | Записывает стандартный вид 1 числа | 1 |
| Записывает стандартный вид 2 числа | 1 |
| Находит произведение чисел | 1 |
| - записывает ответ в стандартном виде | 1 |
| 4 | Переводят объем в стандартный вид | 1 |
| Выполняют умножение одночленов | 1 |
| Записывают ответ в стандартном виде | 1 |
| 5 | определяет порядок действий | 1 |
| применяет свойства степени для преобразования выражений | 1 |
| определяет значение нулевой степени | 1 |
|  | выполняет сложение и вычитание | 1 |
|  | находит ответ | 1 |
|  | всего | 20 |

**ХАРАКТЕРИСТИКА ЗАДАНИЙ СУММАТИВНОГО ОЦЕНИВАНИЯ**  за 2 четверть

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| **Раздел** | **Проверяемая цель** | **Кол. заданий\*** |
| **Функция.  График  функции** | 7.4.1.5знать определение линейной  функции y=kx+b, строить её график и устанавливать его расположение в зависимости от значений k и b | 1 |
| 7.4.1.7 определять знаки  k  и  b  линейной функции y=kx+b, заданной графиком |
| 7.4.1.12 строить график функции  *у*=*кх*  (k≠0) и знать её свойства | 1 |
| 7.4.1.9 задавать формулой линейную функцию, график которой параллелен графику данной функции или пересекает его | 1 |
| 7.4.1.4 знать определение функции  y=kx, строить её график и устанавливать его расположение в зависимости от k |  |
| 7.4.2.4 решать системы линейных уравнений графическим способом | 1 |
| 7.4.1.6 находить точки пересечения графика линейной функции с осями координат (без построения графика) | 1 |
| 7.4.1.5 знать определение линейной функции y=kx+b, строить её график и устанавливать его расположение в зависимости от значений k и b |
| 7.4.1.8обосновывать взаимное  расположение графиков линейных функций в зависимости от значений их коэффициентов |
| **Элементы статистики** | 7.3.3.2 вычислять абсолютную и относительную частоты варианты | 1 |
| 7.3.3.5 проверять данные таблицы на непротиворечивость |
| 7.3.3.7 анализировать статистическую информацию, представленную в виде таблицы или полигона частот | 1 |
| **ИТОГО:** |  | **7** |

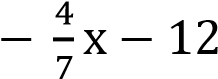
## Задания суммативного оценивания за 2 четверть

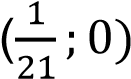
## Ф.И.\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 7 «\_\_\_\_\_» класс

**1 вариант**

1. (1 балл] Найдите значение коэффициента k, если известно, что график функции у = проходит через точку с координатами А (1; – 4).

А) 4 В) 1 С) – 1 Д) – 4

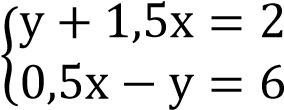
1. [1балл] Найдите координаты точки пересечения функции у =  с осью абсцисс:

А) ( 21; 0) В)  С)  Д) (21; 0)

1. [3 балла] Задайте формулой функцию, график которой проходит через точку (0; 3) и параллелен графику функции

y = –5x.

1. [4балла] Социологи опросили 20 школьников, выясняя, сколько книг каждый из них прочел за прошедший месяц. Были получены следующие данные: 3, 0, 1, 5, 1, 2, 3, 3, 1, 1, 3, 0, 3, 4, 2, 4, 5, 5, 6, 2
2. постройте таблицу абсолютных частот и таблицу относительных частот;
3. укажите самое распространенное число прочитанных книг;
4. проверьте таблицу относительных частот на непротиворечивость

1. [3 балла] Решите графическим методом систему уравнений: 

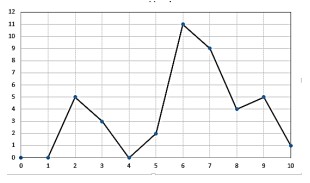
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1. [4 балла] Результаты письменного экзамена

по математике (максимальный балл – 10) представлены полигоном абсолютных частот. Проанализируйте информацию и найдите:

a) объем выборки;

1. балл, полученный большим количеством учеников
2. процент учащихся, имеющих высокий результат, если считать, что 8,9,10 баллов

– это высокий результат,

**7**. График функции заданной уравнением  пересекает ось абсцисс в точке с координатами (-3;0). а) найдите значение а;

в) запишите функцию в виде 

с) не выполняя построения графика функции, определите через какую четверть график не проходит

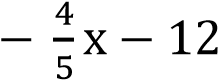
## Ф.И.\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_7 «\_\_\_\_\_» кл

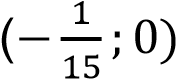
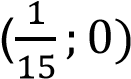
## Задания суммативного оценивания за 2 четверть

## 2 вариант

1. [1балл] Найдите значение коэффициента k, если известно, что график функции у  проходит через точку с координатами А (2; – 3).

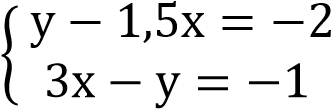
А) -6 В) 6 С) – 3 Д) 2

1. [1балл] Найдите координаты точки пересечения функции у =  с осью абсцисс:

А) ( 15; 0) В)  С)  Д) (15; 0)

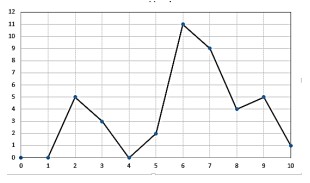
1. [3 балла] Задайте формулой функцию, график которой проходит через точку (0; 2) и параллелен графику функции

y = –6x.

1. [4 балла] Имеются данные о количестве дежурств 15 сотрудников кафедры за месяц 3 0 5 7 4 3 1 9 5 3 4 4 2 8 5
2. постройте таблицу абсолютных частот и таблицу относительных частот;
3. укажите самое распространенное количество дежурств;
4. проверьте таблицу относительных частот на непротиворечивость
5. [3 балла] Решите графическим методом систему уравнений: 

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1. [4 балла] Результаты письменного экзамена по математике (максимальный балл – 10) представлены полигоном абсолютных частот. Проанализируйте информацию и найдите: a) объем выборки;
2. балл, полученный большим количеством учеников
3. процент учащихся, имеющих высокий результат, если считать, что 8,9,10 баллов – это высокий результат,



**7**. [4 балла] График функции заданной уравнением  пересекает ось абсцисс в точке с координатами (2;0).

а) найдите значение а;

в) запишите функцию в виде 

с) не выполняя построения графика функции, определите через какую четверть график не проходит

## ХАРАКТЕРИСТИКА ЗАДАНИЙ СУММАТИВНОГО ОЦЕНИВАНИЯ за 3 четверть

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| **Раздел** | **Проверяемая цель** | **Кол. заданий\*** |
| **Формулы сокращённого умножения** | 7.1.2.14 использовать формулы сокращённого умножения для рационального счёта | 1 |
| 7.2.1.15 выполнять тождественные преобразования алгебраических выражений с помощью формул сокращённого умножения | 1 |
| 7.2.1.10 знать и применять формулы сокращённого умножения | 1 |
| 7.2.1.11 знать и применять формулы сокращённого умножения |
| 7.2.1.14 раскладывать алгебраические выражения на множители с помощью формул сокращённого умножения |
| 7.4.2.2 решать текстовые задачи, с помощью составления уравнений и неравенств | 1 |
| **ИТОГО:** |  | **4** |

**Ф.И.\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 7 «\_\_\_\_» класс**

**Суммативное оценивание за 3 четверть по предмету «Алгебра»**

**1 вариант**

1. Вычислите наиболее рациональным способом:

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2. Разложите многочлен на множители: a) = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

b) = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

3. Упростите выражение:  и найдите его значение при .

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\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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4. Разность квадратов двух чисел равна 25, а сумма этих чисел тоже равна 25. Найдите эти числа.

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| **№** | **Ответ** | **Балл** | **Дополнительная информация** |
| 1 | Применяет формулу разности квадратов | 1 |  |
| Выполняет вычисления в числителе и знаменателе | 1 |  |
| Выполняет вычисления | 1 |  |
| Находит ответ | 1 |  |
| 2a | Выносит за скобку общий множитель | 1 |  |
| Применяет фомулу разности кубов | 1 |  |
| 2b | Применяет формулу квадрата разности | 1 |  |
| Выносит общий множитель за скобки | 1 |  |
| Представляет выражение в виде произведения | 1 |  |
| 3a | Применяет формулу квадрата разности (суммы) | 1 |  |
| Применяет формулу разности квадратов | 1 |  |
| Приводит подобные слагаемые | 1 |  |
| 3b | Подставляет значение вместо неизвестного | 1 |  |
| Находит ответ | 1 |  |
| 4 | Записывает условие задачи | 1 | Принимать любые буквенные обозначения |
| Составляет систему уравнений | 1 |  |
| Применяет формулу разности квадратов | 1 | Принимать другой верный способ решения |
| Решает систему уравний | 1 |  |
| Находит первое значение | 1 |  |
| Находит второе значение | 1 |  |

**Ф.И.\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 7 «\_\_\_\_» класс**

**Суммативное оценивание за 3 четверть по предмету «Алгебра»**

**2 вариант**

1. Вычислите наиболее рациональным способом:

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2. Разложите многочлен на множители: a) a) = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

b) = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

3. Упростите выражение:  и найдите его значение при. 

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4. Разность квадратов двух чисел равна 64, а разность самих чисел равна 2. Найдите эти числа.

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| **№** | **Ответ** | **Балл** | **Дополнительная информация** |
| 1 | Применяет формулу разности квадратов | 1 |  |
| Выполняет вычисления в числителе и знаменателе | 1 |  |
| Выполняет вычисления | 1 |  |
| Находит ответ | 1 |  |
| 2a | Выносит за скобку общий множитель | 1 |  |
| Применяет фомулу разности кубов | 1 |  |
| 2b | Применяет формулу квадрата разности | 1 |  |
| Выносит общий множитель за скобки | 1 |  |
| Представляет выражение в виде произведения | 1 |  |
| 3a | Применяет формулу квадрата разности (суммы) | 1 |  |
| Применяет формулу разности квадратов | 1 |  |
| Приводит подобные слагаемые | 1 |  |
| 3b | Подставляет значение вместо неизвестного | 1 |  |
| Находит ответ | 1 |  |
| 4 | Записывает условие задачи | 1 | Принимать любые буквенные обозначения |
| Составляет систему уравнений | 1 |  |
| Применяет формулу разности квадратов | 1 | Принимать другой верный способ решения |
| Решает систему уравний | 1 |  |
| Находит первое значение | 1 |  |
| Находит второе значение | 1 |  |

**ХАРАКТЕРИСТИКА ЗАДАНИЙ СУММАТИВНОГО ОЦЕНИВАНИЯ**

**4 четверть**

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| **Раздел** | **Проверяемая цель** | **Уровень мыслительных навыков** | **Кол. заданий\*** |
| **Алгебраические дроби** | 7.2.1.17 находить область допустимых значений переменных в алгебраической дроби | Применение | 1 |
| 7.2.1.18 применять основное свойство алгебраической дроби | Применение | 1 |
| 7.2.1.21 выполнять преобразования алгебраических выражений | Применение | 2 |
| 7.2.1.19 выполнять сложение и вычитание алгебраических дробей | Применение | 1 |
| 7.2.1.20 выполнять умножение и деление, возведение в степень алгебраических дробей | Применение | 1 |
| **ИТОГО:** |  |  | **6** |

**СОЧ-4 Ф.И.\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 7 «\_\_\_\_\_» кл**

**1 ВАРИАНТ**

1. Из данных выражений укажите алгебраические дроби: [
2. Найдите область допустимых значений алгебраического выражения

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1. Упростите выражение и найдите его значение при х = 5

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1. Выполните вычитание дробей

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1. Выполните деление алгебраических дробей

6.Докажите, что при всех допустимых значениях b выражение

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**Ф.И.\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 7 «\_\_\_\_\_» кл**

**2 ВАРИАНТ**

1. Из данных выражений укажите алгебраические дроби:
2. Найдите область допустимых значений алгебраического выражения

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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1. Упростите выражение и найдите его значение при а = 7

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1. Выполните сложение дробей:

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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1. Выполните деление алгебраических дробей:

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1. Докажите, что при всех допустимых значениях b выражение

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| **№** | **Ответ** | **Балл** | **Дополнительная информация** |
| 1 | Определяет алгебраические дроби | 1 | Если указывает только, один правильный ответ или оба правильные и один неправильный |
| 1 | Второй балл, если оба правильные |
| 2a | Определяет ОДЗ | 1 |  |
| *Записывает промежуток* | 1 |  |
| 2b | Определяет ОДЗ | 1 |  |
| 3 | Применяет ФСУ | 1 |  |
| Выполняет сокращение | 1 |  |
| Находит ответ | 1 |  |
| 4 | Применяет ФСУ | 1 |  |
| Приводит к общему знаменателю | 1 |  |
| Находит ответ | 1 |  |
| 5 | Применяет ФСУ | 1 | Принимается любой вариант записи |
| Применяет правило деления дробей | 1 |
| Находит ответ | 1 |
| 6 | Применяет ФСУ | 1 |  |
| Применяет правило умножения | 1 |  |
| Находит ответ | 1 |  |
| Выполняет вычитание | 1 |  |
| Выполняет деление | 1 |  |
| Приходит к верному решению | 1 |  |
| **Итого:** | | **20** |  |

**ХАРАКТЕРИСТИКА ЗАДАНИЙ СУММАТИВНОГО ОЦЕНИВАНИЯ**

**4 четверть**

|  |  |  |  |
| --- | --- | --- | --- |
| **Раздел** | **Проверяемая цель** | **Уровень мыслительных навыков** | **Кол. заданий\*** |
| **Алгебраические дроби** | 7.2.1.17 находить область допустимых значений переменных в алгебраической дроби | Применение | 1 |
| 7.2.1.18 применять основное свойство алгебраической дроби | Применение | 1 |
| 7.2.1.21 выполнять преобразования алгебраических выражений | Применение | 2 |
| 7.2.1.19 выполнять сложение и вычитание алгебраических дробей | Применение | 1 |
| 7.2.1.20 выполнять умножение и деление, возведение в степень алгебраических дробей | Применение | 1 |
| **ИТОГО:** |  |  | **6** |

**СОЧ-4 Ф.И.\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 7 «\_\_\_\_\_» кл**

**1 ВАРИАНТ**

1. Из данных выражений укажите алгебраические дроби: [
2. Найдите область допустимых значений алгебраического выражения

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1. Упростите выражение и найдите его значение при х = 5

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1. Выполните вычитание дробей

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1. Выполните деление алгебраических дробей

6.Докажите, что при всех допустимых значениях b выражение

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**Ф.И.\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 7 «\_\_\_\_\_» кл**

**2 ВАРИАНТ**

1. Из данных выражений укажите алгебраические дроби:
2. Найдите область допустимых значений алгебраического выражения

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1. Упростите выражение и найдите его значение при а = 7

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1. Выполните сложение дробей:

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1. Выполните деление алгебраических дробей:

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1. Докажите, что при всех допустимых значениях b выражение

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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| **№** | **Ответ** | **Балл** | **Дополнительная информация** |
| 1 | Определяет алгебраические дроби | 1 | Если указывает только, один правильный ответ или оба правильные и один неправильный |
| 1 | Второй балл, если оба правильные |
| 2a | Определяет ОДЗ | 1 |  |
| *Записывает промежуток* | 1 |  |
| 2b | Определяет ОДЗ | 1 |  |
| 3 | Применяет ФСУ | 1 |  |
| Выполняет сокращение | 1 |  |
| Находит ответ | 1 |  |
| 4 | Применяет ФСУ | 1 |  |
| Приводит к общему знаменателю | 1 |  |
| Находит ответ | 1 |  |
| 5 | Применяет ФСУ | 1 | Принимается любой вариант записи |
| Применяет правило деления дробей | 1 |
| Находит ответ | 1 |
| 6 | Применяет ФСУ | 1 |  |
| Применяет правило умножения | 1 |  |
| Находит ответ | 1 |  |
| Выполняет вычитание | 1 |  |
| Выполняет деление | 1 |  |
| Приходит к верному решению | 1 |  |
| **Итого:** | | **20** |  |