**Итоговая контрольная работа по математике**

**обучающего(ей)ся 10 класса** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Вариант 1**

Часть В

*К каждому заданию этой части записать краткий ответ*

\frac{\sqrt [3]{3}\cdot \sqrt [3]{18}}{\sqrt [3]{2}}**В1.**  Найдите значение выражения:

\sqrt[4]{64}\cdot \sqrt[12]{64} 1) 2)

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| Ответ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1 |

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| Ответ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 2 |

**В2.** Решите уравнения:

1. \sqrt{-63-16x}=-x.\sqrt[3]{{x+5}} = 5 2)

Если уравнение имеет более одного корня, в ответе запишите меньший из них.

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| Ответ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1 |

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| Ответ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 2 |

\frac{x^{-13}\cdot x^{8}}{x^{-6}}**В3.** Найдите значение выражения:

x=9 1) при

{{0,75}^{\frac{1}{8}}}\cdot {{4}^{\frac{1}{4}}}\cdot {{12}^{\frac{7}{8}}}

**2)**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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| Ответ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1 |

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| Ответ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 2 |

**\left(\frac{1}{2}\right)^{x-4}=16^x.В4.** Найдите корень уравнения:

1. {{2}^{1-3x}}~=~16 2)

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| Ответ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1 |

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| Ответ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 2 |

**В5.** Найдите значение выражения:

1. {{\log }_{5}}7\cdot {{\log }_{7}}25({{\log }_{6}}216)\cdot ({{\log }_{9}}729) 2)

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| Ответ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1 |

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| Ответ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 2 |

**В6.** Найдите корень уравнения:

1. \log_2 (4 +x)=\log_2 (2 -x) +2{{\log }_{\frac{1}{3}}}(6-5x)~=~-4

2)

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| Ответ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1 |

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| Ответ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 2 |

Часть С

*В задании части С приведите полное решение*

**С1.** Найдите площадь поверхности прямой призмы, в основании которой лежит ромб с диагоналями, равными 6 и 8, и боковым ребром, равным 10.

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

**С2.** Ребра тетраэдра равны 37. Найдите площадь сечения, проходящего через середины четырех его ребер.

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

**Шкала оценивания итогового теста за 10 класс:** задания **части В** -2 балла, **С**-3 балла. Максимальный балл - 18

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| **оценка «2»** | **оценка «3»** | **оценка «4»** | **оценка «5»** |
| **Модуль «Геометрия** | | | |
| **0-7** | **8-11** | **12-15** | **16-18** |

|  |  |
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| **Общее количество баллов** | **Оценка** |
|  |  |

**Итоговая контрольная работа по математике**

**обучающего(ей)ся 10 класса** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Вариант 2**

Часть В

*К каждому заданию этой части записать краткий ответ*

**В1.**  Найдите значение выражения:

1) \frac{\sqrt [3]{2}\cdot \sqrt [3]{12}}{\sqrt [3]{3}} 2) \sqrt[6]{16}\cdot \sqrt[12]{16}

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| Ответ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1 |

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| Ответ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 2 |

**В2.** Решите уравнения:

1)\sqrt[3]{{x+7}} = 5 2) \sqrt{-56-15x}=-x.

Если уравнение имеет более одного корня, в ответе запишите меньший из них.

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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| Ответ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1 |

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| Ответ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 2 |

\frac{x^{-1}\cdot x^{-7}}{x^{-13}}**В3.** Найдите значение выражения:

{{1,25}^{\frac{1}{7}}}\cdot {{2}^{\frac{3}{7}}}\cdot {{10}^{\frac{6}{7}}}x=3 1) при **2)**

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| Ответ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1 |

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| Ответ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 2 |

\left(\frac{1}{2}\right)^{x-6}=32^x.{{2}^{3-2x}}~=~32**В4.** Найдите корень уравнения:

1) 2)

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| Ответ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1 |

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| Ответ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 2 |

**В5.** Найдите значение выражения:

{{\log }_{0,8}}4\cdot {{\log }_{4}}1,25({{\log }_{9}}81)\cdot ({{\log }_{2}}64)1) 2)

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| Ответ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1 |

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| Ответ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 2 |

{{\log }_{\frac{1}{4}}}(9-5x)~=~-3**В6.** Найдите корень уравнения:

1)

\log_3 (7 +2x)=\log_3 (3 -2x) +22)

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| Ответ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1 |

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| Ответ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 2 |

Часть С

*В задании части С приведите полное решение*

**С1.** Найдите площадь боковой поверхности правильной шестиугольной призмы, сторона основания, которой равна 6, а высота — 2.

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

**С2.** Ребра тетраэдра равны 37. Найдите площадь сечения, проходящего через середины четырех его ребер.

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

**Шкала оценивания итогового теста за 10 класс:** задания **части В** -2 балла, **С**-3 балла. Максимальный балл - 18

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| **оценка «2»** | **оценка «3»** | **оценка «4»** | **оценка «5»** |
| **Модуль «Геометрия** | | | |
| **0-7** | **8-11** | **12-15** | **16-18** |

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| **Общее количество баллов** | **Оценка** |
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