

**Итоговая контрольная работа по геометрии**

**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*

А1. Около прямоугольника, стороны которого 6 м и 8 м, описана окружность. Найдите длину этой окружности.

1) 100$π$ м 2) 20$ π м$ 3) 10$ π м$ 4) 25$ π м$

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



**Часть В**

*К каждому заданию этой части записать краткий ответ*

В1. В треугольнике *ABC* *AC*=*BC*. Внешний угол при вершине *B* равен 1460. Найдите угол *C*. Ответ дайте в градусах

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

В2. Найдите площадь прямоугольного треугольника, если его катет и гипотенуза равны соответственно 36 и 39.

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В3. В равнобедренной трапеции известны высота, меньшее основание и угол при основании. Найдите площадь трапеции.

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В4. На каком расстоянии (в метрах) от фонаря стоит человек ростом 2 м, если длина его тени равна 1 м, высота фонаря 9 м?

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В5. Точка *O* – центр окружности, на которой лежат точки *A*, *B* и *C*. Известно, что ∠*ABC*=150 и ∠*OAB*=80. Найдите угол *BCO*. Ответ дайте в градусах.

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

В6. Прямые *m* и *n* параллельны. Найдите ∠3, если ∠1=480, ∠2=570. Ответ дайте в градусах.

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

**Часть С**

*Решения заданий этой части напишите аккуратно и разборчиво на листе*

С1. Две стороны треугольника равны 5 см и 21 см, а угол между ними 600. Найдите третью сторону треугольника и его площадь.

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С2. Биссектрисы углов *A* и *D* параллелограмма *ABCD* пересекаются в точке, лежащей на стороне *BC*. Найдите *BC*, если *AB*=36.

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

**Шкала оценивания итогового теста за 9 класс**

Задания **части А** -1 балл (геометрия-1), задания **части В1, В2, В3** -1 балл, **В4-В6**-2 балла (геометрия-6), **С1, С2** -2 балла (геометрия -2). Максимальный балл -14.

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| **оценка «2»** | **оценка «3»** | **оценка «4»** | **оценка «5»** |
| **геометрия**  |
| **0-5** | **6-8** | **9-11** | **12-14** |

**Итоговая контрольная работа по геометрии**

**обучающего(ей)ся 9 класса**

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**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*

А1. Прямоугольник, стороны которого 6 м и 8 м, вписан в круг. Найдите площадь круга.

1. 100$π$ м2 2. 20$ π м^{2}$ 3. 10$ π м^{2}$ 4. 25$ π м^{2}$

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



**Часть В**

*К каждому заданию этой части записать краткий ответ*

В1. Диагональ *BD*параллелограмма *ABCD* образует с его сторонами углы, равные 65° и 50°. Найдите меньший угол параллелограмма. Ответ дайте в градусах.

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

В2. Найдите площадь прямоугольного треугольника, если его катет и гипотенуза равны соответственно 28 и 100.

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

В3. Боковая сторона трапеции равна 3, а один из прилегающих к ней углов равен 30°. Найдите площадь трапеции, если её основания равны 2 и 6.

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

В4. Человек, рост которого равен 1,6 м, стоит на расстоянии 17 м от уличного фонаря. При этом длина тени человека равна 8 м. Определите высоту фонаря (в метрах).

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В5. Прямая касается окружности в точке *K*. Точка *O* – центр окружности. Хорда *KM* образует с касательной угол, равный 83∘. Найдите величину угла *OMK*. Ответ дайте в градусах.

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

В6. Прямые *m* и *n* параллельны. Найдите ∠3, если ∠1=320, ∠2=720. Ответ дайте в градусах.

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

**Часть С**

*Решения заданий этой части напишите аккуратно и разборчиво на листе*

С1. Две стороны треугольника равны 5 см и 16 см, а угол между ними 1200. Найдите третью сторону треугольника и его площадь.

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

 С2. Биссектриса угла *A*  параллелограмма  *ABCD* пересекает сторону ВС в точке Е. Найдите периметр параллелограмма, если *AD*=12 см, а ВЕ=5 см.

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

**Шкала оценивания итогового теста за 9 класс**

Задания **части А** -1 балл (геометрия-1), задания **части В1, В2, В3** -1 балл, **В4-В6**-2 балла (геометрия-6), **С1, С2** -2 балла (геометрия -2). Максимальный балл -14.

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| **оценка «2»** | **оценка «3»** | **оценка «4»** | **оценка «5»** |
| **геометрия**  |
| **0-5** | **6-8** | **9-11** | **12-14** |