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|  | Тест по теме «Четырехугольники» |
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| **1** | |  |  |  | | --- | --- | --- | |  | | | |  | Средняя линия треугольника на 5,8 см меньше основания треугольника. Найдите сумму средней линии треугольника и основания.   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | |  |  |  | 16,8 |  |  |  | 11,6 |  |  |  | 17,4 |  |  |  | 17,2 | |  | |

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| **2** | |  |  |  | | --- | --- | --- | |  | | | |  | В параллелограмме ABCD провели ВМ – биссектрису угла В и DN-биссектрису угла D. Определите взаимное расположение прямых ВМ и DN.   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | |  |  |  | Перпендикулярны |  |  |  | пересекаются, но не перпендикулярны |  |  |  | параллельны |  |  |  | определить невозможно | |  | |

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| **3** | |  |  |  | | --- | --- | --- | |  | | | |  | Чему равен внешний угол правильного пятиугольника?   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | |  |  |  | 400 |  |  |  | 1080 |  |  |  | 900 |  |  |  | 720 | |  | |

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| **4** | |  |  |  | | --- | --- | --- | |  | | | |  | Периметр ромба равен 24 см. Чему равна меньшая диагональ, если один из углов ромба равен 60°.   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | |  |  |  | 16 |  |  |  | 8 |  |  |  | 6 |  |  |  | 10 | |  | |

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| **5** | |  |  |  | | --- | --- | --- | |  | | | |  | В четырехугольнике ABCD ےВАС = 40° , ےВСА = ےСАD = 50°, ےАСD= 70° . Определите его вид.   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | |  |  |  | параллелограмм |  |  |  | прямоугольник |  |  |  | трапеция |  |  |  | ромб | |  | |

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| **6** | |  |  |  | | --- | --- | --- | |  | | | |  | Если в параллелограмме ABCD один из углов в 3 раза меньше другого. Чему равен больший угол?   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | |  |  |  | 1200 |  |  |  | 1440 |  |  |  | 1350 |  |  |  | 1500 | |  | |

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| **7** | |  |  |  | | --- | --- | --- | |  | | | |  | Диагональ прямоугольника образует с одной из его сторон угол, равный 32° Найдите угол между прямыми, содержащими диагонали прямоугольника.   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | |  |  |  | 600 |  |  |  | 660 |  |  |  | 640 |  |  |  | 620 | |  | |

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| **8** | |  |  |  | | --- | --- | --- | |  | | | |  | Стороны параллелограмма пропорциональны числам 2 и 5. Найдите большую сторону, если периметр параллелограмма равен 42 см   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | |  |  |  | 6 |  |  |  | 15 |  |  |  | 21 |  |  |  | 3 | |  | |

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| **9** | |  |  |  | | --- | --- | --- | |  | | | |  | Один из углов ромба равен 60°, а его меньшая диагональ равна 2,5 см. Найдите периметр ромба.   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | |  |  |  | 5 |  |  |  | 20 |  |  |  | 15 |  |  |  | 10 | |  | |

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| **10** | |  |  |  | | --- | --- | --- | |  | | | |  | Один из углов ромба равен 150°,а его высота равна 5,5 см. Найдите периметр ромба.   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | |  |  |  | 44 |  |  |  | 42 |  |  |  | 40 |  |  |  | 36 | |  | |

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| **11** | |  |  |  | | --- | --- | --- | |  | | | |  | Диагонали ромба составляют с его стороной углы, один из которых на 30° меньше другого. Чему равен меньший угол ромба?   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | |  |  |  | 1200 |  |  |  | 300 |  |  |  | 500 |  |  |  | 600 | |  | |

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| **12** | |  |  |  | | --- | --- | --- | |  | | | |  | В прямоугольнике один из углов, образованных диагоналями, равен 120°, а меньшая сторона прямоугольника равна 7 см. Найдите диагональ прямоугольника.   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | |  |  |  | 28 |  |  |  | 10 |  |  |  | 14 |  |  |  | 16 | |  | |

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| **13** | |  |  |  | | --- | --- | --- | |  | | | |  | В параллелограмме разность смежных сторон равна 5 см, а его периметр равен 38 см. Чему равна большая сторона параллелограмма?   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | |  |  |  | 4 |  |  |  | 8 |  |  |  | 12 |  |  |  | 6 | |  | |

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| **14** | |  |  |  | | --- | --- | --- | |  | | | |  | В трапеции основания равны 9 см и 15 см. Чему равна ее средняя линия?   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | |  |  |  | 24 |  |  |  | 12 |  |  |  | 6 |  |  |  | 7 | |  | |

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| **15** | |  |  |  | | --- | --- | --- | |  | | | |  | Сколько сторон имеет выпуклый многоугольник, если сумма его углов равна 2880°?   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | |  |  |  | 18 |  |  |  | 20 |  |  |  | 14 |  |  |  | 16 | |  | |

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| **16** | |  |  |  | | --- | --- | --- | |  | | | |  | Каждый угол выпуклого многоугольника равен 120°. Найдите число сторон этого многоугольника.   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | |  |  |  | 6 |  |  |  | 7 |  |  |  | 8 |  |  |  | 5 | |  | |

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| **17** | |  |  |  | | --- | --- | --- | |  | | | |  | В равнобедренной трапеции боковая сторона равна 5 см, а средняя линия 10 см. Чему равен периметр трапеции?   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | |  |  |  | 15 |  |  |  | 17 |  |  |  | 30 |  |  |  | 32 | |  | |

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| **18** | |  |  |  | | --- | --- | --- | |  | | | |  | В равнобедренной трапеции высота образует с боковой стороной угол 30° , а основания равны 7 см и 13 см. Чему равен периметр трапеции?   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | |  |  |  | 32 |  |  |  | 30 |  |  |  | 27 |  |  |  | 29 | |  | |

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| **19** | |  |  |  | | --- | --- | --- | |  | | | |  | Биссектриса угла А прямоугольника АВСD пересекает сторону ВС в точке Е так, что ВЕ = 4,5 см, СЕ= 5,5 см. Чему равен периметр параллелограмма?   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | |  |  |  | 31 |  |  |  | 20 |  |  |  | 40 |  |  |  | 29 | |  | |