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|  | Тест по теме «Четырехугольники» |
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| **1** |

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|  | Средняя линия треугольника на 5,8 см меньше основания треугольника. Найдите сумму средней линии треугольника и основания.

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|   |   |  | 16,8 |   |   |  | 11,6 |   |   |  | 17,4 |   |   |  | 17,2 |

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| **2** |

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|  | В параллелограмме ABCD провели ВМ – биссектрису угла В и DN-биссектрису угла D. Определите взаимное расположение прямых ВМ и DN.

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|   |   |  | Перпендикулярны |   |   |  | пересекаются, но не перпендикулярны |   |   |  | параллельны |   |   |  | определить невозможно |

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| **3** |

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|  | Чему равен внешний угол правильного пятиугольника?

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|   |   |  | 400 |   |   |  | 1080 |   |   |  | 900 |   |   |  | 720 |

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| **4** |

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|  | Периметр ромба равен 24 см. Чему равна меньшая диагональ, если один из углов ромба равен 60°.

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|   |   |  | 16 |   |   |  | 8 |   |   |  | 6 |   |   |  | 10 |

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| **5** |

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|  |
|  | В четырехугольнике ABCD ےВАС = 40° , ےВСА = ےСАD = 50°, ےАСD= 70° . Определите его вид.

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|   |   |  | параллелограмм |   |   |  | прямоугольник |   |   |  | трапеция |   |   |  | ромб |

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| **6** |

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|  | Если в параллелограмме ABCD один из углов в 3 раза меньше другого. Чему равен больший угол?

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|   |   |  | 1200 |   |   |  | 1440 |   |   |  | 1350 |   |   |  | 1500 |

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| **7** |

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|  | Диагональ прямоугольника образует с одной из его сторон угол, равный 32° Найдите угол между прямыми, содержащими диагонали прямоугольника.

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|   |   |  | 600 |   |   |  | 660 |   |   |  | 640 |   |   |  | 620 |

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| **8** |

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|  | Стороны параллелограмма пропорциональны числам 2 и 5. Найдите большую сторону, если периметр параллелограмма равен 42 см

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|   |   |  | 6 |   |   |  | 15 |   |   |  | 21 |   |   |  | 3 |

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| **9** |

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|  | Один из углов ромба равен 60°, а его меньшая диагональ равна 2,5 см. Найдите периметр ромба.

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|   |   |  | 5 |   |   |  | 20 |   |   |  | 15 |   |   |  | 10 |

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| **10** |

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|  | Один из углов ромба равен 150°,а его высота равна 5,5 см. Найдите периметр ромба.

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|   |   |  | 44 |   |   |  | 42 |   |   |  | 40 |   |   |  | 36 |

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| **11** |

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|  | 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** |

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|  | В прямоугольнике один из углов, образованных диагоналями, равен 120°, а меньшая сторона прямоугольника равна 7 см. Найдите диагональ прямоугольника.

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|   |   |  | 28 |   |   |  | 10 |   |   |  | 14 |   |   |  | 16 |

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| **13** |

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|  | 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** |

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|  | В трапеции основания равны 9 см и 15 см. Чему равна ее средняя линия?

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|   |   |  | 24 |   |   |  | 12 |   |   |  | 6 |   |   |  | 7 |

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| **15** |

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|  | Сколько сторон имеет выпуклый многоугольник, если сумма его углов равна 2880°?

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|   |   |  | 18 |   |   |  | 20 |   |   |  | 14 |   |   |  | 16 |

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| **16** |

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|  | Каждый угол выпуклого многоугольника равен 120°. Найдите число сторон этого многоугольника.

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|   |   |  | 6 |   |   |  | 7 |   |   |  | 8 |   |   |  | 5 |

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| **17** |

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|  | В равнобедренной трапеции боковая сторона равна 5 см, а средняя линия 10 см. Чему равен периметр трапеции?

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|   |   |  | 15 |   |   |  | 17 |   |   |  | 30 |   |   |  | 32 |

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| **18** |

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|  | 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** |

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|  | 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?

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|   |   |  | 31 |   |   |  | 20 |   |   |  | 40 |   |   |  | 29 |

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