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| **Card 1** What is the value of *x*?145°0 | **Card 2**The measure of the vertex angle of an isosceles triangle is 16 less than 1.5 times the measure of one base angle. What is the measure of a base angle, *x*?Base Angles*x*°Vertex Angle (1.5*x* – 16)° *x*° |
| **Card 3**Find the measure of the **obtuse angle** given the following parallel lines cut by a transversal. (0.75*x* – 35.5)°(0.375*x* + 22)° | **Card 4**Karla is making a quilt with a pattern of parallel lines that crisscross each other.(3*x* – 7) °(2*x* + 6)°What is the value of *x*? |
| **Card 5**If m∠2 = (5*x* + 13)° and m∠6 = (7*x* – 1)°, find the m∠4.**1****2****3****4****5****6****7****8** | **Card 6**Find the measure of the **exterior angle** of the triangle in the figure. |
| **Card 7**In the figure below, the measure of the obtuse angle is 132°. What is the measure of the acute angle? | **Card 8**Lines *m* and *n* are parallel. What is mABC? ***A******B******C****m**n*(*x* + 71)˚(3*x* – 3)˚ |
| **Card 9**If m∠4 = (9*x* + 7)° and m∠6 = (4*x* + 4)°, find the measure of the **acute angle**.**1****2****3****4****5****6****7****8** |  |
| **Card 10**The m∠1 = (2*x* – 43.75)° and m∠2 = (0.5*x* – 10)°.**1****2****3****4****5****6****7****8**Solve for *x*. | **Geometric Applications Review**There are 10 cards. Match each card with another problem that has the same answer.**Key:**

|  |  |
| --- | --- |
| **Card Numbers** | **Answer** |
| 1 and 4 | 13 |
| 5 and 7 | 48 |
| 6 and 8 | 108 |
| 2 and 9 | 56 |
| 3 and 10 | 93.5 |

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Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_\_\_\_ Pd: \_\_\_\_\_\_ **Geometric Applications of Equations Review**

There are 10 cards. Match each card with another problem that has the same answer. Show work in each box below. Record your answers in the grids on the back.

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| **Card 1***x* = \_\_\_\_\_\_\_\_\_ | **Card 2***x* = \_\_\_\_\_\_\_\_\_ | **Card 3**Obtuse angle = \_\_\_\_\_\_\_\_\_ | **Card 4***x* = \_\_\_\_\_\_\_\_\_ | **Card 5**m∠4 = \_\_\_\_\_\_\_\_\_ |
| **Card 6**Exterior angle = \_\_\_\_\_\_\_\_\_ | **Card 7**Acute angle = \_\_\_\_\_\_\_\_\_ | **Card 8**mABC = \_\_\_\_\_\_\_\_\_ | **Card 9**acute angle = \_\_\_\_\_\_\_\_\_ | **Card 10***x* = \_\_\_\_\_\_\_\_\_ |

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| **Card Numbers that Match** |  |  |  |  |  |
| **Answer to both cards.**(Fill in the grid with correct place value.) |  |  |  |  |  |