|  |  |
| --- | --- |
| **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 | |

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.) |  |  |  |  |  |