Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Table #: \_\_\_\_\_\_\_ Period: \_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_\_

**NOTES 3.2B – Exterior Angles of Triangles**

*Objective: Find the measures of exterior angles of triangles by writing and solving equations. (CCSS: 8.G.5)*

*HW: 3.2B Homework (handout)*

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|  p. 112 -- EXTERIOR ANGLE MEASURES OF A TRIANGLEThe measure of an exterior angle of a triangle is equal to the sum of the measures of the two nonadjacent interior angles. z = x + y |
| **Example 1:** Find the value of n. Then find the measure of the exterior angle. |
| **Example 2:** Find the value of a. Then find the measure of the exterior angle. |
| **Example 3:** Write an equation for the value of *y* in terms of *x*. Then solve the equation for *x*.  $$50°$$ |

*BACK 🡪*

***ON YOUR OWN***

|  |
| --- |
| 1. Find the value of x. Then find the measure of the exterior angle.

 |
| 1. Find the value of x.

 |
| 1. Write an equation for the value of *y* in terms of *x*. Then solve the equation for *x*.

  $$45°$$  |

Solutions to 3.2B HW:

1. 10, 70o, 60o 2) 4, 40o, 28o 3) 5, 55o, 70o 4) 15, 60o, 90o

5) 24, 48o, 95o 6) 12, 36o, 86o 7) 15, 30o, 23o 8) 10, 63o, 73o

9) 20, 80o, 59o 10) 25, 25o, 125o 11) 40, 84o, 41o 12) 11, 44o, 73o