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

**7.3A Triangles\_Classwork**

*Objective: construct triangles with given angle measures; construct triangles with given side lengths. CC.SS.7.G.2*

*HW: 7.3A worksheet*

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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| **ACTIVITY 1: Constructing Triangles Using Sides Lengths**Construct a triangle with the specified straws if possible. Compare your results with your table. RedBlueGreenPurple

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Blue/green/purple straws** | **Red/Green/Purple straws** | **Red/Blue/Purple straws** | **Red/Blue/Green straws** |
| **Side Length of the longest one** |  |  |  |  |
| **Sum of other two sides lengths** |  |  |  |  |

**RULE:** Write a rule that compares the sum of any two side lengths to the third side length. |
| **Practice Problems:**1. Can a triangle have side lengths 22, 33, 25? Why or why not? Show your work.
2. Can a triangle have side lengths 3, 7, 11? Why or why not? Show your work.
3. Two sides of a triangle are 15 ft and 12 ft. What could be the longest length?
 |
| **RULE: Sum of the Angle Measures of a Triangle** “The sum of the angle measures of a triangle is 180°.” |



**PRACTICE PROBLEMS**

