Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**Wiki Stick Triangles**

Follow these directions:

1. Carefully measure and cut lengths of spaghetti noodles according to the following amounts:

**1 inch; 2 inches; 3 inches; 4 inches; 5 inches; 6 inches; 7 inches; 8 inches**

2. Try to make a triangle with the given lengths in the chart. If you are able to make a triangle write yes, if not write no in the appropriate column.

3. Generalize your findings by writing a “rule” on how to tell if three given lengths can form a triangle.

4. Answer the questions at the bottom of the page.

|  |  |  |  |
| --- | --- | --- | --- |
|  |  |  | Triangle? Yes or No |
| 4 | 5 | 6 |  |
| 1 | 3 | 5 |  |
| 3 | 4 | 5 |  |
| 3 | 5 | 6 |  |
| 2 | 7 | 8 |  |
| 1 | 4 | 5 |  |
| 2 | 3 | 4 |  |
| 5 | 6 | 7 |  |
| 2 | 5 | 8 |  |

My rule for determining if three given lengths can form the sides of a triangle:

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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Use your rule to determine if the following lengths could form a triangle. Write yes or no.

(a) 34, 40, 83 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (b) 5, 33, 51 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

(c) 19, 31, 50 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (d) 13, 18, 29 \_\_\_\_\_\_\_\_\_\_\_\_\_\_