

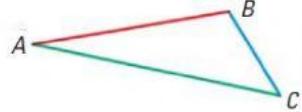
NAME \_\_\_\_\_

QUARTER \_\_\_\_\_

GRADE &amp; SECTION \_\_\_\_\_

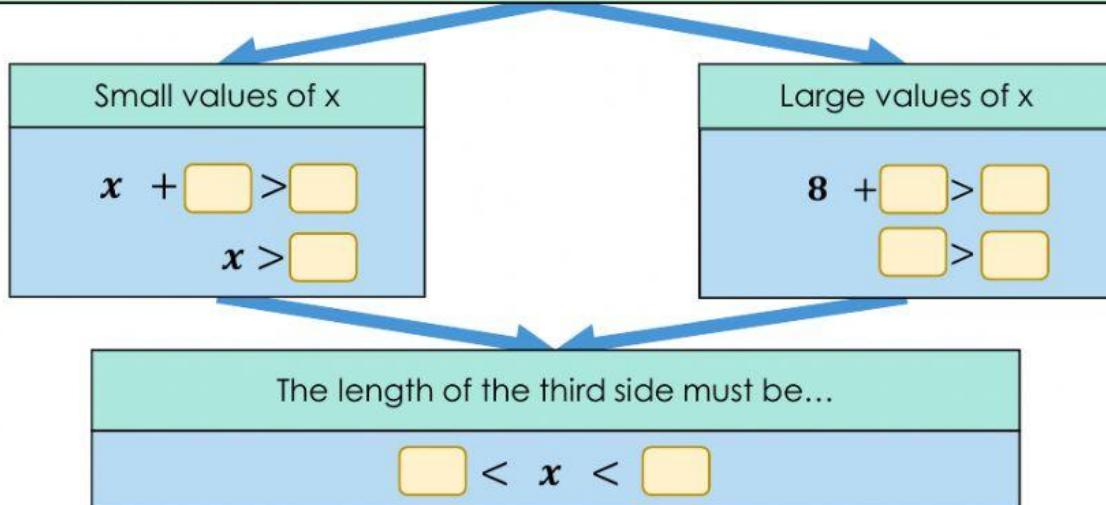
DATE \_\_\_\_\_

## Activity: Triangle Inequality Theorem Part II

THEOREM	For Your Notebook
<b>Triangle Inequality Theorem</b> The sum of the lengths of any two sides of a triangle is greater than the length of the third side. $AB + BC > AC$ $AC + BC > AB$ $AB + AC > BC$ <i>Proof:</i> Ex. 47, p. 334	

**I. Complete the Math-Breaker Map as guide in making conclusions about the possible length of the 3<sup>rd</sup> side to form a triangle.**

1. A triangle has one side of length 8 and another of length 3. Describe the possible lengths of the third side.



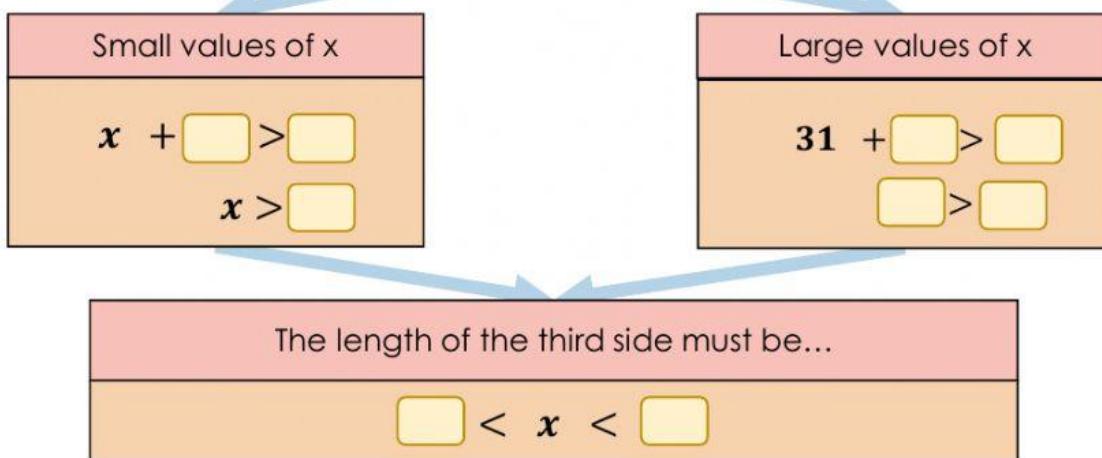
Drag the indicated 3<sup>rd</sup> side measure whether it is possible or not.

1	2	3	4.5	5	5.5	6.2	14	9.6	10	11.1	21
13	31	7	8								

NOT possible Measure of 3 <sup>rd</sup> side			

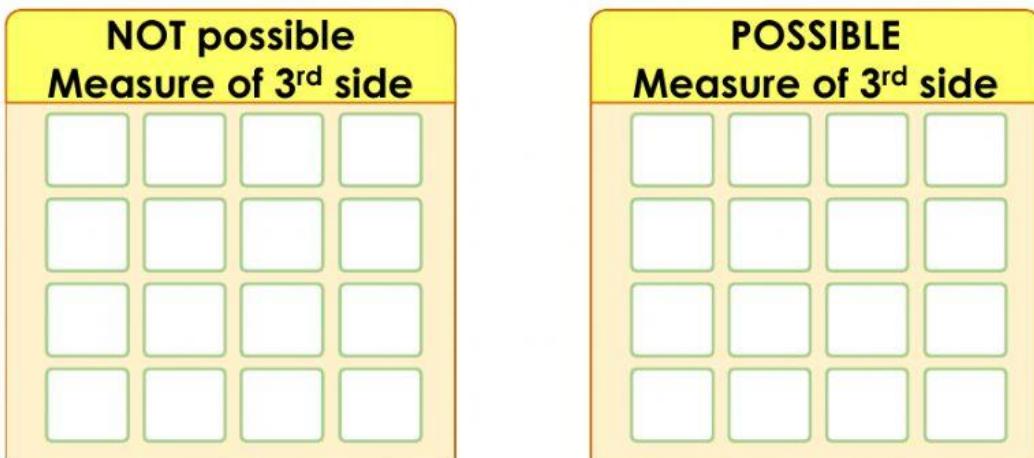
POSSIBLE Measure of 3 <sup>rd</sup> side			

2. A triangle has one side of length 9 and another of length 31. Describe the possible lengths of the third side.



Drag the indicated 3<sup>rd</sup> side measure whether it is possible or not.

9   31   9.2   31.5   1   2   10   20   15   34   39.9   22.7  
 27.2   41   39   8



II. Describe the possible lengths of the third side of the triangle given the lengths of the other two sides.

1. 25m, and 25m   Possible 3<sup>rd</sup> side: [ ] < x < [ ]  
 2. 2ft, and 40ft   Possible 3<sup>rd</sup> side: [ ] < x < [ ]  
 3. 10in, and 23in   Possible 3<sup>rd</sup> side: [ ] < x < [ ]

How many attempts? \_\_\_\_.  
 How well did you do?



Need help!



Just OK!



Splendid

I THINK...