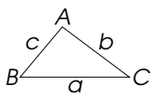
Lesson 4.1.2: Triangle Inequality Theorem

Triangle Inequality Theorem: The sum of the lengths of any two sides of a triangle is greater than the length of the third side.



$a+b>c$
$b+c>a$
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Practice Exercises 4.1.2

A. Write *Yes* if the given measures can form a triangle or *No* if not.

1. $7,13,10$
2. $4,7,2$
3. $7,2,7$
4. $7,6,10$
5. $2,12,12$
6. $5,7,11$
7. $7,8,10$
8. $5,8,13$
9. $7,16,10$
10. $11,10,8$

B. Two sides of $\triangle ABC$ have the following measures. Find the range of possible measures for the third side.

1. $a=4, b=8$
2. $a=7, c=9$
3. $b=12, c=9$
4. $a=4, b=12$
5. $a=6, c=10$

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A. Write *Yes* if the given measures can form a triangle or *No* if not.

1. $8,14,9$
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3. $8,2,8$
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5. $1,13,13$
6. $4,6,10$
7. $6,7,9$
8. $4,7,12$
9. $6,15,9$
10. $12,11,9$

B. Two sides of $\triangle ABC$ have the following measures. Find the range of possible measures for the third side.

1. $a=5, b=9$
2. $a=6, c=10$
3. $b=11, c=8$
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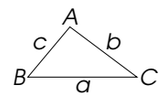

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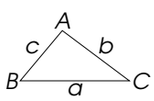

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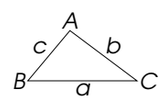

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