

Name : _____

Score : _____

Teacher : _____

Date : _____

Triangle Inequality Theorem

State if each set of three numbers can be the lengths of the sides of a triangle.

1) 9, 4, 18

6) 13, 12, 29

2) 3, 8, 16

7) 4, 9, 8

3) 9, 8, 21

8) 11, 12, 22

4) 5, 12, 22

9) 12, 7, 21

5) 4, 10, 13

10) 4, 12, 13

Given are the lengths of two sides of a triangle. Find the range of lengths for the third side.

11) 7, 4

14) 7, 11

12) 3, 10

15) 13, 5

13) 10, 3

16) 5, 7



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Triangle Inequality Theorem

State if each set of three numbers can be the lengths of the sides of a triangle.

1) 9, 4, 18

No

6) 13, 12, 29

No

2) 3, 8, 16

No

7) 4, 9, 8

Yes

3) 9, 8, 21

No

8) 11, 12, 22

Yes

4) 5, 12, 22

No

9) 12, 7, 21

No

5) 4, 10, 13

Yes

10) 4, 12, 13

Yes

Given are the lengths of two sides of a triangle. Find the range of lengths for the third side.

11) 7, 4

$3 < x < 11$

14) 7, 11

$4 < x < 18$

12) 3, 10

$7 < x < 13$

15) 13, 5

$8 < x < 18$

13) 10, 3

$7 < x < 13$

16) 5, 7

$2 < x < 12$

