

NAME: _____

DATE: _____
TEACHER: _____

The Triangle Inequality Theorem Worksheet (3)

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

1) 4, 5, 2

6) 2, 11, 10

2) 2, 7, 8

7) 4, 5, 8

3) 10, 9, 23

8) 13, 5, 20

4) 9, 5, 9

9) 12, 3, 10

5) 11, 9, 22

10) 6, 10, 6

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

11) 3, 6

14) 11, 2

12) 13, 3

15) 7, 6

13) 4, 7

16) 8, 5

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The Triangle Inequality Theorem Worksheet (3)

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

1) 4, 5, 2

Yes

6) 2, 11, 10

Yes

2) 2, 7, 8

Yes

7) 4, 5, 8

Yes

3) 10, 9, 23

No

8) 13, 5, 20

No

4) 9, 5, 9

Yes

9) 12, 3, 10

Yes

5) 11, 9, 22

No

10) 6, 10, 6

Yes

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

11) 3, 6

 $3 < x < 9$

14) 11, 2

 $9 < x < 13$

12) 13, 3

 $10 < x < 16$

15) 7, 6

 $1 < x < 13$

13) 4, 7

 $3 < x < 11$

16) 8, 5

 $3 < x < 13$