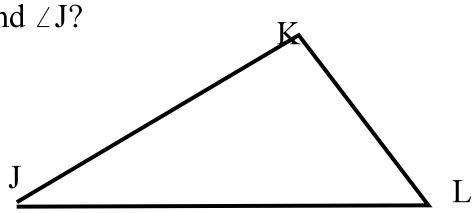
CE, CD, DE

UT, ST, SU

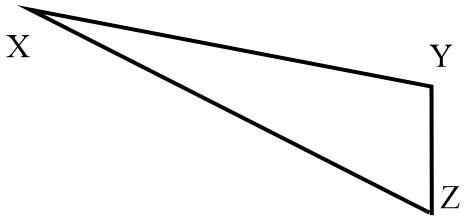
KEY

Triangles: Angle- Side Relationships 3
Geometry

1) In the triangle, JL > LK. What is true of ∠K and ∠J?

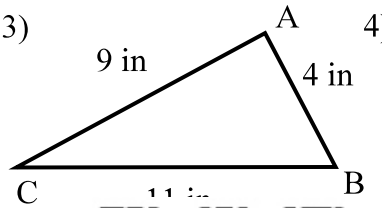


2) In the triangle, XZ > YZ. What is true of ∠Y and ∠X?



List the angles from smallest to greatest.

3)



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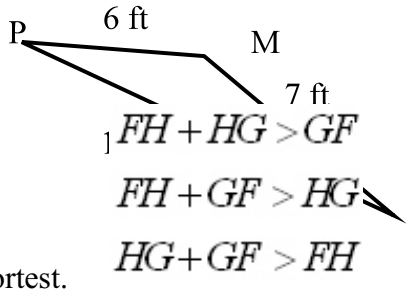

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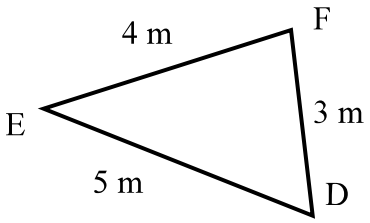


$ML + LK > K$

$ML + KM > L$

$LK + KM > M$

$WX + XV > VW$

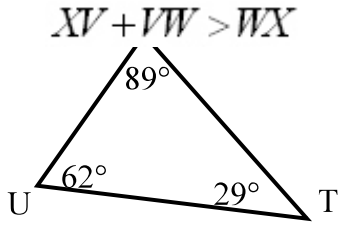
$FH + HG > GF$

$FH + GF > HG$

$HG + GF > FH$

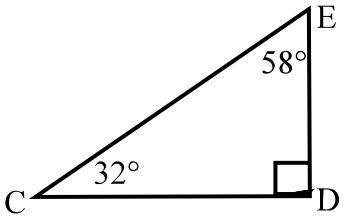
List the sides from longest to shortest.

6)

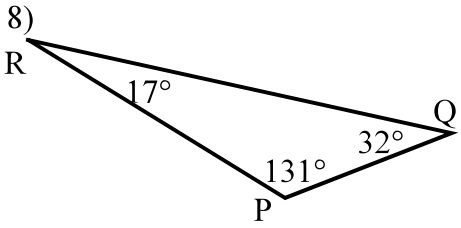


$XV + VW > WX$

7)

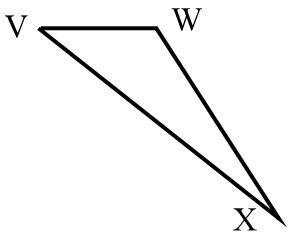


8)

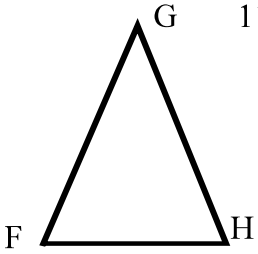


List three inequalities for each triangle.

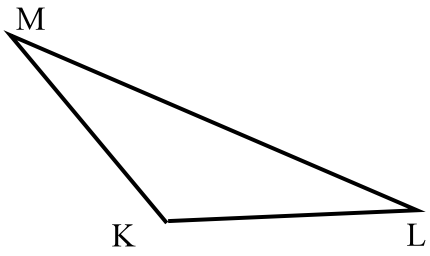
9)



10)



11)



Can these numbers be the lengths of the sides of a triangle?

12) 6, 4, 9	13) 2, 3, 2	14) 20, 2, 17	15) 6, 10, 4	16) 7, 7, 13
Yes	**Yes**	**No**	**No**	**Yes**
17) 9, 2, 4	18) 24, 8, 18	19) 19, 15, 2	20) 15, 20, 5	21) 11, 13, 15
No	**Yes**	**No**	**No**	**Yes**

In the following problems, the lengths of two sides of a triangle are given. What can you say about the possible lengths for the third side?

22) 10, 4	23) 12, 3	24) 1, 6	25) 13, 13
6 < x < 14	**9 < x < 15**	**5 < x < 7**	**0 < x < 26**