1) In triangle CDE, CD>DE. What is true of ∠E and ∠C?

C

D

E

$$\boxed{\angle C < \angle E}$$
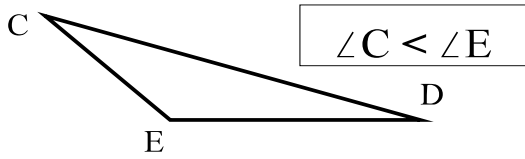
2) In triangle PQR, PR>QP. What is true of ∠R and ∠Q?

P

R

Q

$$\boxed{\angle Q > \angle R}$$
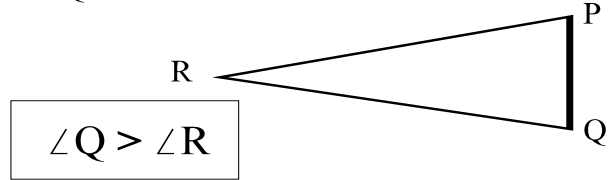
List the angles from smallest to greatest.

3)

K

18 ft

14 ft

L

J   21 ft

$$\boxed{\angle L, \angle J, \angle K}$$

4)

M   10 ft   P

17 ft   16 ft

N

$$\boxed{\angle N, \angle M, \angle P}$$

5)

R   23 ft   S

19 ft

28 ft

Q

$$\boxed{\angle S, \angle Q, \angle R}$$
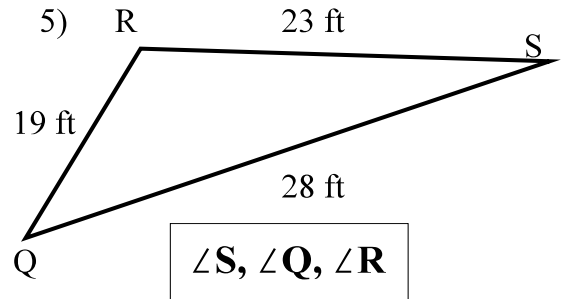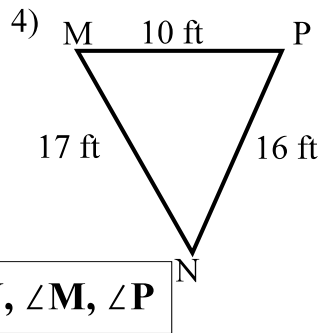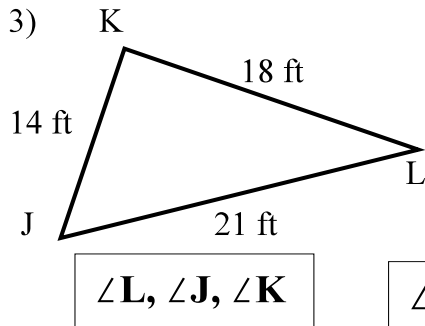
List the sides from longest to shortest.

6)

A

60°

30°   B

C

7)

Z

27°

38°

115°

Y

X

8)

H

84°

I

33°

63°

J

X

$$\boxed{\overline{AB}, \overline{CB}, \overline{AC} \qquad \overline{ZX}, \overline{ZY}, \overline{XY} \qquad \overline{IJ}, \overline{IH}, \overline{HJ}}$$
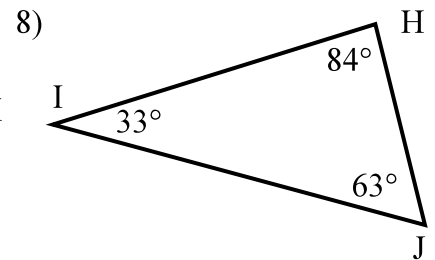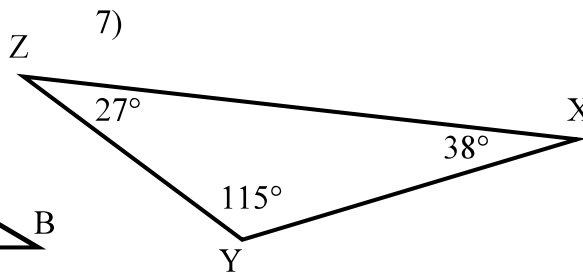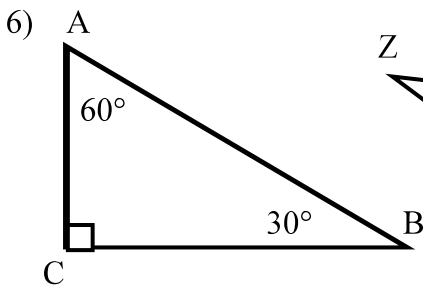
List three inequalities for each triangle.

9)

B

A   C

10)

H

F   G

11)

W   X

Y
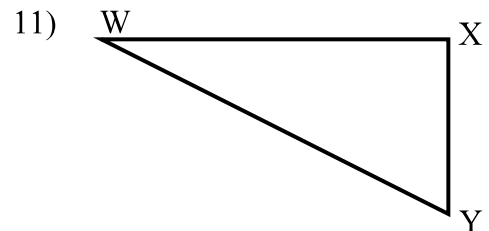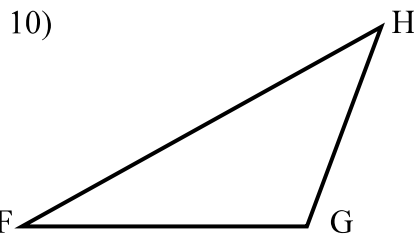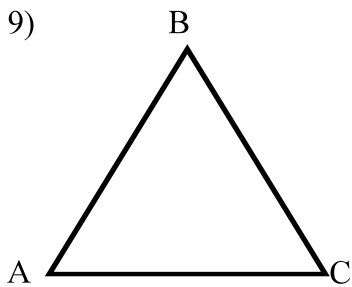
$$\boxed{\begin{array}{ll}
AB + BC > AC & FH + HG > FG \\
BC + AC > AB & HG + FG > FH \\
AC + AB < BC & FG + FH > HG
\end{array}}$$

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

12) 3, 4, 5	13) 9, 10, 18	14) 2, 3, 6	15) 5, 6, 9	16) 13, 6, 19
Yes	Yes	No	Yes	No

17) 14, 9, 27	18) 12, 13, 21	19) 9, 21, 12	20) 14, 7, 11	21) 15, 34, 18
No	Yes	No	Yes	No

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) 13, 6	23) 11, 11	24) 15, 18	25) 15, 34
$7 < x < 19$	$0 < x < 22$	$3 < x < 33$	$19 < x < 49$