

1-6-14
1st Geo

① Can a triangle have side lengths of

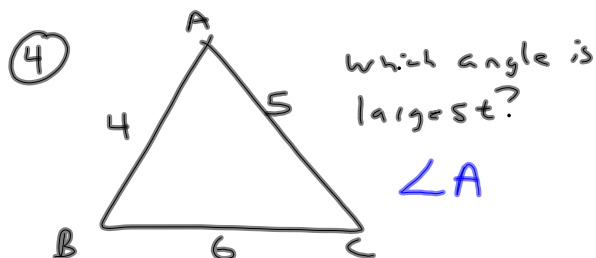
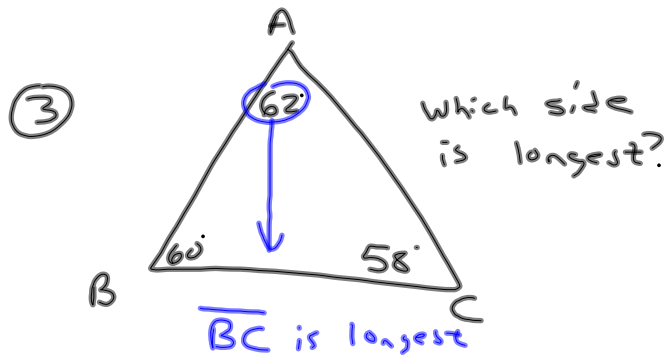
(A) $\boxed{2, 6, 9}$ $\overset{6-2}{\curvearrowright} 4 \quad \underset{6+2}{\downarrow} 8$

(B) $\boxed{6, 4, 8}$ $\overset{2}{\curvearrowright} 10 \checkmark$

② I have two pieces of wood of lengths 4 ft. and 7 ft. What could be possible lengths of a 3rd piece if I wanted to make a triangle?

$$7-4 < m < 7+4$$

$$3 < m < 11$$



In $\triangle ABC$ $\angle A = 4x$,
 $\angle B = 3x + 50$, $\angle C = 4x + 20$.

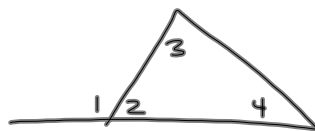
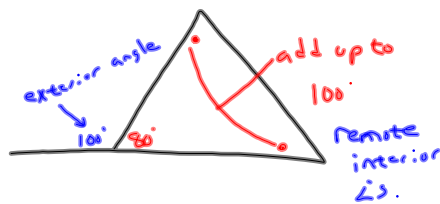
Put sides in order from largest to smallest.



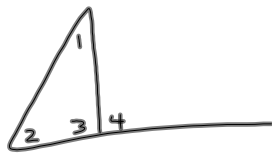
$$4x + 3x + 50 + 4x + 20 = 180$$

$$11x + 70 = 180$$

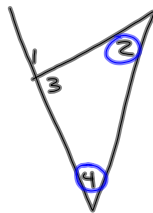
$$\begin{array}{r} 11x + 70 = 180 \\ -70 \quad -70 \\ \hline 11x = 110 \\ \hline x = 10 \end{array}$$



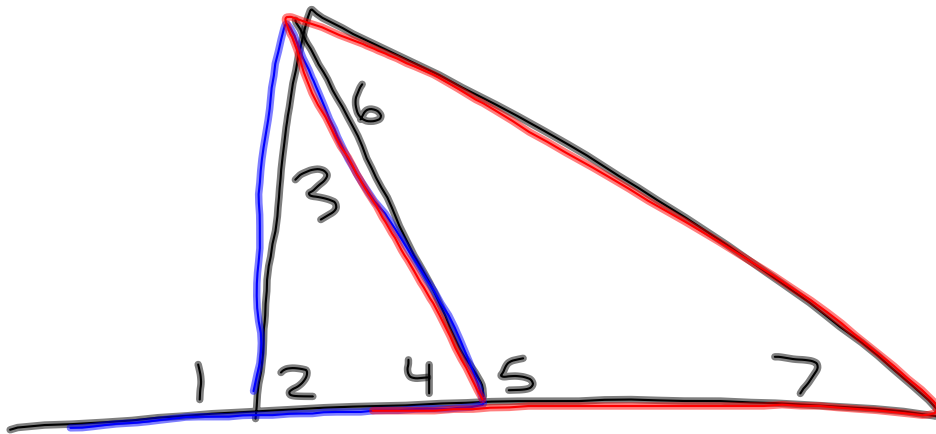
I know $\angle 1$ is larger than $\angle 4, \angle 3$



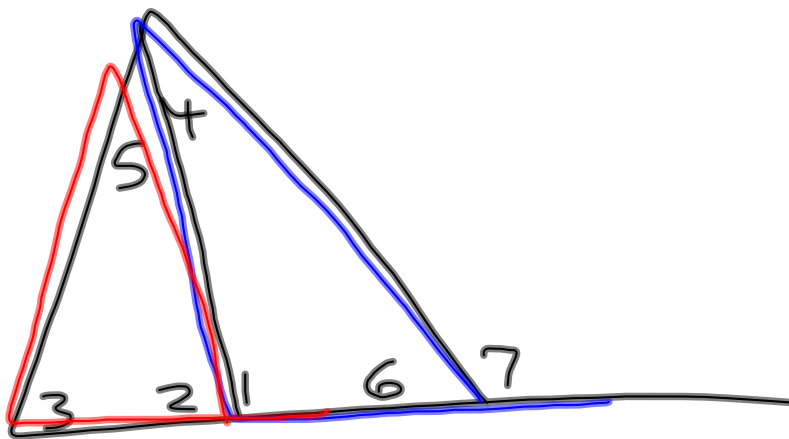
$\angle 4$ is larger than $\angle 1$ and $\angle 2$



$\angle 1$ is bigger than $\angle 2$ and $\angle 4$.



$\angle 1$ is larger than $\angle 3, \angle 4, \angle 6, \angle 7$.



$\angle 7$ is larger than $\angle 1, \angle 4, \angle 3, \angle 5$.