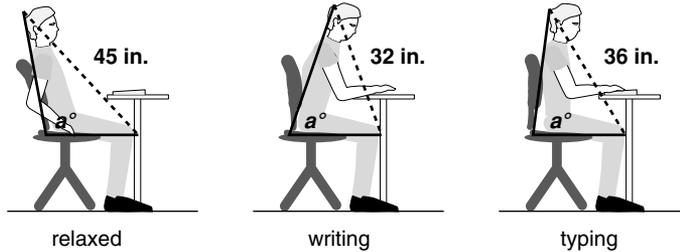


LESSON
5-6 **Problem Solving**
Inequalities in Two Triangles

1. The angle that a person makes as he or she is sitting changes with the task. The diagram shows the position of a student at his desk. In which position is the angle measure a° at which he is sitting the greatest? The least? Explain.



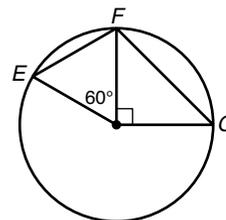
2. Two cyclists start from the same location and travel in opposite directions for 2 miles each. Then the first cyclist turns right 90° and continues for another mile. At the same time, the second cyclist turns 45° left and continues for another mile. At this point, which cyclist is closer to the original starting point?

3. A compass is used to draw a circle. Then the compass is opened wider and another circle is drawn. Explain how this illustrates the Hinge Theorem.

Choose the best answer.

4. Two sides of each triangle in the circle are formed from the radii of the circle. Compare EF and FG .

- A $EF = FG$
 B $EF < FG$
 C $EF > FG$
 D Not enough information is given.



5. Compare $m\angle Y$ and $m\angle M$.

- F $m\angle Y = m\angle M$
 G $m\angle Y > m\angle M$
 H $m\angle Y < m\angle M$
 J Not enough information is given.

