No calculators or other electronic devices are allowed on this quiz. If you need more space to solve a problem, use the back of the paper.

1. (2+2+1=5 points) (a) Draw a figure with exactly 4 lines of symmetry.

(b) Draw a figure with rotational symmetry of order 5.

(c) Draw a parallelogram which is not a rhombus.

2. (10 points) You are given two segments ($\overline{AB}$ and $\overline{CD}$) and a ray ($\overrightarrow{EF}$). Use a compass and straightedge to draw an isosceles triangle so that:

   (1) the base lies on the ray $\overrightarrow{EF}$,
   (2) the base has length $AB$, and
   (3) the other two sides have length $CD$.

Clearly indicate each step used in the construction.
3. (5+5=10 points) Give complete Teacher’s Solutions to the following problems, justifying all steps and carefully organizing your solution.

(a) You are given that $EFGH$ is a parallelogram, and that $G$ and $H$ lie on a circle with center $O$ (only part of the circle is shown). Find $h$.

(b) Set up an equation for $x$, and solve it. Include a full Teacher’s Solution: That is, justify each step in your work.