

Construction and Exploration with Squares and Rectangles

Instructions: Construct and answer using a compass and ruler. Show steps where possible.

1. Construct a rectangle with one side 5 cm and a diagonal of 7 cm.

2. Construct a rectangle that can be divided into two identical squares. Use any side length.

3. Draw a square with a circular hole in the center. How would you find the center accurately?

4. In a rectangle, place two points X and Y on opposite sides. Change their positions and measure the line XY. Record your results.

5. Draw a square with curves bulging outward from each side using a compass. What radius did you use for the arcs?