Draw Quadrilaterals

To draw quadrilaterals, use your ruler.
Mark 4 points on your paper.
Make sure that no 3 points are in a row.
With your ruler, draw line segments between points so that they don’t intersect.

To draw rectangles and squares, use graph paper.
Mark 1 point on your paper.
Go straight right the length of the longest side.
Go straight up the length of the shorter side.
Go straight left the length of the longest side.
Go down to your starting point.

To draw a rhombus, use isometric paper.
To draw parallelograms and trapezoids, use graph paper.

Remember:
Quadrilaterals are classified according to their sides and their angles.

<table>
<thead>
<tr>
<th>Quadrilateral</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>parallelogram</td>
<td>2 pairs of sides of equal length and 2 pairs of parallel sides</td>
</tr>
<tr>
<td>rectangle</td>
<td>2 pairs of sides of equal length and 4 right angles</td>
</tr>
<tr>
<td>square</td>
<td>4 sides of equal length and 4 right angles</td>
</tr>
<tr>
<td>rhombus</td>
<td>4 sides of equal length and no right angles</td>
</tr>
<tr>
<td>trapezoid</td>
<td>2 parallel sides and 2 nonparallel sides</td>
</tr>
</tbody>
</table>

**Example 1**
Draw a square with sides of length 6 units.

**Example 2**
Draw a rhombus.
Draw each quadrilateral using the directions given.

1. Two pairs of parallel sides and no right angles
2. Four sides of equal length and no right angles
3. One pair of parallel sides and one pair of non-parallel sides
4. Two pairs of parallel sides and four right angles
5. No two sides equal, and no right angles
6. Four sides of equal length and four right angles

Answer each question.

7. How many right angles are there in a square? ____________
8. How many right angles are there in a rhombus? ____________
9. Is a 5-sided figure a quadrilateral? ____________

10. How are a square and a rhombus alike?

11. How are they different?

Chapter 26 – Lesson 3
Draw each quadrilateral using the directions given.

Name the quadrilateral.

1. No two sides equal, and no right angles
   ![Diagram of a quadrilateral with no equal sides and no right angles]

2. Four sides of equal length and four right angles
   ![Diagram of a square]

3. Two pairs of parallel sides and four right angles
   ![Diagram of a rectangle]

4. One pair of parallel sides and one pair of non parallel sides
   ![Diagram of a trapezoid]

5. Two pairs of parallel sides and no right angles
   ![Diagram of a parallelogram]

6. Four sides of equal length and no right angles
   ![Diagram of a rhombus]

Answer each question.

7. How many right angles are there in a rectangle? 4

8. How many right angles are there in a parallelogram? 0

9. Is a 6-sided figure a quadrilateral? No

10. How are a rectangle and a parallelogram alike?
    Both have 2 pairs of parallel sides of equal length.

11. How are they different?
    A rectangle has right angles and a parallelogram doesn’t.
**Math Reasoning**

**Geometry**

**MR 1.1**

**PRACTICE**

**Draw each quadrilateral using the directions given.**

1. Two pairs of parallel sides and no right angles
   
   ![Diagram of a quadrilateral with two pairs of parallel sides and no right angles.](image)
   
   **Answers may vary.**

2. Four sides of equal length and no right angles
   
   ![Diagram of a quadrilateral with four sides of equal length and no right angles.](image)
   
   **Answers may vary.**

3. Two pairs of parallel sides and four right angles
   
   ![Diagram of a quadrilateral with two pairs of parallel sides and four right angles.](image)
   
   **Answers may vary.**

4. No two sides equal, and no right angles
   
   ![Diagram of a quadrilateral with no two sides equal and no right angles.](image)
   
   **Answers may vary.**

5. Four sides of equal length and four right angles
   
   ![Diagram of a quadrilateral with four sides of equal length and four right angles.](image)
   
   **Answers may vary.**

**Answer each question.**

7. How many right angles are there in a square?  
   
   **4**

8. How many right angles are there in a rhombus?  
   
   **0**

9. Is a 5-sided figure a quadrilateral?  
   
   **No**

10. How are a square and a rhombus alike?  
    
    **They both have 4 equal sides.**

11. How are they different?  
    
    **A square has right angles.**
    **If a rhombus has right angles, it is called a square.**
Draw each quadrilateral using the directions given. Name the quadrilateral.

1. No two sides equal, and no right angles
   - quadrilateral

2. Four sides of equal length and four right angles
   - square

3. Two pairs of parallel sides and four right angles
   - rectangle

4. One pair of parallel sides and one pair of non parallel sides
   - trapezoid

5. Two pairs of parallel sides and no right angles
   - parallelogram

6. Four sides of equal length and no right angles
   - rhombus

Answer each question.

7. How many right angles are there in a rectangle? 4
8. How many right angles are there in a parallelogram? 0
9. Is a 6-sided figure a quadrilateral? No

10. How are a rectangle and a parallelogram alike?
    Both have 2 pairs of parallel sides of equal length.

11. How are they different?
    A rectangle has right angles and a parallelogram doesn’t.