

Quadrilateral Definitions Properties and BOXING BATTLE Project Quiz Grade

Part I (due by _____)

For this project we will be using construction tools to discover the properties of quadrilaterals.

- You must draw the diagonals for both of your polygons.
- On each quadrilateral, you must measure all 10 segments formed and all 16 angles formed.
- **Also, answer the following questions in complete sentences:**
 1. *What do you notice about the opposite sides?*
 2. *What do you notice about the opposite angles?*
 3. *What do you notice about the diagonals with respect to the angles of the quadrilateral?*
 4. *What do you notice about the diagonals with respect to each other (i.e., are they perpendicular, do they bisect each other)?*

1. Parallelogram: A quadrilateral whose opposite sides are parallel.

2. Rectangle: A parallelogram with four congruent angles.

3. Rhombus: A parallelogram with four congruent sides.

4. Square: A parallelogram with four congruent sides and four congruent angles.

5. Trapezoid: A quadrilateral with exactly one pair of opposite sides parallel.

6. Kite: A quadrilateral with exactly two pairs of distinct congruent consecutive sides.

Extension:

After completing the above you will then need to find a real life picture of your shape (either one you took or one from the internet). Include these in your part 1 slide presentation and test out your conjectures from above four questions. Do they hold true?

Part 1 Submission:

Before you submit your Part 1 Google Slide Presentation, be sure to check the rubric to have everything included that you need: one polygon with measurements for each member of your group, the extension, the chart(s), and answers to the four questions above in complete sentences.

After Part 1 Submission:

After you finish part one, you should decide what type of presentation you plan on using, if you want something that is not suggested get approval from your teacher. Then it is highly recommended that you watch the video lesson presentation for your polygon that is posted to Google Classroom. This will help you confirm your believes of the properties, diagrams, and ability to apply them to examples.

parallelogram 7.2 DAY ONE CYU & 7.3 DAY TWO CYU

rectangle: 7.4 Rectangle CYU

Rhombus: 7.4 Rhombus CYU

square: 7.4 Square CYU

Kite: 7.5 Kite CYU

trapezoid/isosceles trapezoid: 7.5 Trapezoids & Isosceles Trapezoids

Part II (due _____)

Now that you have discovered all of the properties of your shape create a poster, newspaper ad, brochure, publicity stunt, or radio/ TV ad which explains how your quadrilateral is similar to your battle quadrilateral yet unique in itself. Think of this as an advertisement for your shape(s). Come up with a catchy slogan or motto that people will remember long after they see or hear your shape. **Presentation must have diagrams and be informative.** All requirements are listed on the stapled daily rubric.

If you are doing a poster, the poster must be the size of a large piece of poster board.

If you are doing a newspaper ad, it must cover an entire page.

If you are doing a radio or TV ad, the video must be at least 2 minutes in duration.

If you are doing a brochure, it must be a trifold and fill both sides of the paper.

If you are doing a publicity stunt, you must document the entire stunt on video, at least 2 minutes in duration.

Property	Parallelogram	Rectangle	Rhombus	Square	Trapezoid	Kite
Both pairs of opp sides parallel						
Exactly one pair of opp sides parallel						
Both pairs of opp sides congruent						
Exactly one pair of opp sides cong						
All sides congruent						
Opp angles congruent						
All angles congruent						
Diagonal forms 2 congruent triangles						
Diagonal forms two congruent isosceles triangles						
Diagonals are congruent						
Diagonals bisect the opp angles						
Diagonals are perpendicular						
Diagonals bisect each other						
Base angles are congruent						