Unit 10 · Geometry and Classifying Shapes Cheat Sheet

Unit 10 focus: polygon attributes and classifying triangles

1 Big Idea

Classify shapes by their attributes: number of sides, equal sides, parallel sides and kinds of angles.

2 Important Vocabulary

polygon	A closed flat shape made of straight sides.	triangle, pentagon
parallel	Always the same distance apart; never meet.	opposite sides of a rectangle
perpendicular	Meeting to form a right angle.	sides of a square
equilateral / isosceles / scalene	3 equal sides / exactly 2 equal sides / no equal sides.	sides 5, 5, 8 → isosceles

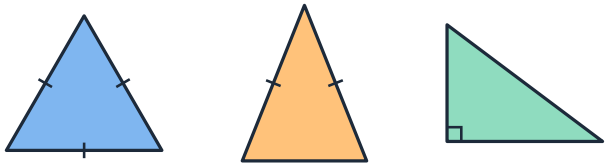
3 How It Works

Classify a triangle with sides 6, 6, 6.

Example: All three sides equal.
By sides: equilateral
Each angle: 60°, so acute

Answer: acute equilateral

4 Visual Model



equilateral **isosceles** **right**

Tick marks show equal sides; a small square shows a right angle.

5 ★ Remember This · Watch Out!

★ Remember this

- Acute: all angles < 90°. Right: one 90° angle. Obtuse: one angle > 90°.
- Triangles get two names: one for angles, one for sides.

⚠ Watch out!

- **Judging by looks:** use the marks and measurements
- **Right AND obtuse?:** a triangle can have only one angle of 90° or more

6 Try It!

1. Angles 30°, 60°, 90°. Classify by angles.
   Answer: ɹıƃɥʇ
2. Sides 3, 4, 5. Classify by sides.
   Answer: ǝuǝlɐɔs

Answers are printed upside down. Turn the page to check!

Unit 10 · Geometry and Classifying Shapes Cheat Sheet

More practice: classifying quadrilaterals and shape hierarchies

1 Big Idea

Shapes belong to families. Every attribute of a family belongs to all its members: a square is a rectangle, a rhombus, a parallelogram and a quadrilateral.

2 Important Vocabulary

quadrilateral	A polygon with 4 sides.	square, trapezoid
parallelogram	A quadrilateral with 2 pairs of parallel sides.	rectangles and rhombuses are parallelograms
rhombus	A parallelogram with 4 equal sides.	a tilted square shape
hierarchy	An organized chart where each group belongs to the group above it.	square → rectangle → parallelogram → quadrilateral

3 How It Works

What names describe a square?

Example: 4 equal sides, 4 right angles, 2 pairs of parallel sides.
Has 2 parallel pairs: parallelogram
Has 4 right angles: rectangle
Has 4 equal sides: rhombus

Answer: square, rectangle, rhombus, parallelogram, quadrilateral

4 Visual Model

Quadrilateral (4 sides)

→ Parallelogram (2 pairs of parallel sides)

→ Rectangle (4 right angles) and Rhombus (4 equal sides)

→ Square (both!)

5 ★ Remember This · Watch Out!

★ Remember this

- "All squares are rectangles" is true; "all rectangles are squares" is false.
- A trapezoid in these lessons has exactly one pair of parallel sides.

⚠ Watch out!

- **Reversing the arrow:** every rhombus is a parallelogram, not the other way
- **Most specific name:** a square is best named "square"

6 Try It!

1. True or false: all rhombuses are squares.
   Answer: ɐsɹǝʃ
2. Name a shape that is a rectangle and a rhombus.
   Answer: ǝɹɐuɹǝʇ

Answers are printed upside down. Turn the page to check!