

Grade 5 - Classifying Two-Dimensional Figures - Worksheet

Common Core 5.G.B.3, 5.G.B.4 · maths-pdf.fr/en/

Name: _____ Class: _____ Date: ____/____/____

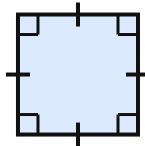
This worksheet has 20 problems on classifying two-dimensional figures (5.G.B.3 and 5.G.B.4). You will name quadrilaterals and triangles, decide which statements about categories are true, and use Venn and tree diagrams.

The first problems use pictures and short descriptions. The last six are word problems with quilts, signs and gardens. Give the most specific name unless the problem asks for all names.

Grade 5 · Common Core State Standards: **5.G.B.3, 5.G.B.4**

Exercise 1 - Name the figure

Name this figure with its most specific name.



Tick marks show equal sides. Small squares show right angles.

Exercise 2 - Squares and rectangles

Decide. True or false: All squares are rectangles. Explain.

Exercise 3 - Rectangles and squares

Decide. True or false: All rectangles are squares. Give an example to explain.

Exercise 4 - Four equal sides

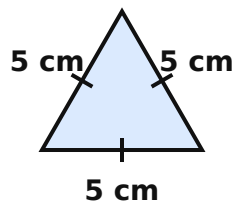
Solve. A quadrilateral has two pairs of parallel sides and 4 equal sides. Its angles are not right angles. What is it?

Exercise 5 - Properties of parallelograms

Write three properties that all parallelograms have.

Exercise 6 - Triangle with three equal sides

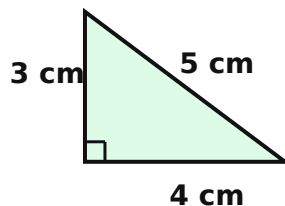
Classify the triangle by its sides.



A triangle with three 5 cm sides.

Exercise 7 - Right triangle sides

Classify the triangle two ways: by its sides and by its angles.



A triangle with a right angle.

Exercise 8 - Angles 40, 70, 70

Solve. A triangle has angles of 40° , 70° and 70° . Classify it by its angles.

Exercise 9 - Angles 30, 30, 120

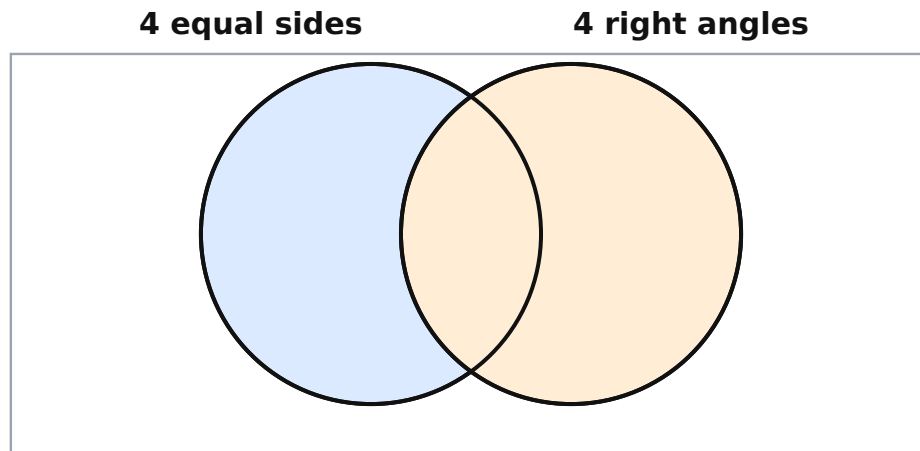
Solve. A triangle has angles of 30° , 30° and 120° . Classify it by its angles.

Exercise 10 - Sides 6, 6, 9

Solve. A triangle has sides 6 in, 6 in and 9 in. Classify it by its sides.

Exercise 11 - Place the shapes

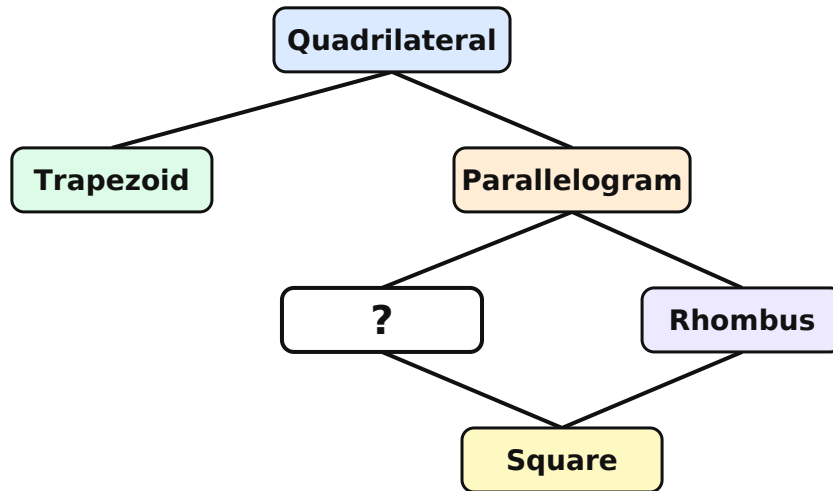
Place a square, a rectangle that is 6 cm by 3 cm, and a rhombus with angles of 60° and 120° in the correct region of the Venn diagram.



Blank Venn diagram.

Exercise 12 - Complete the tree

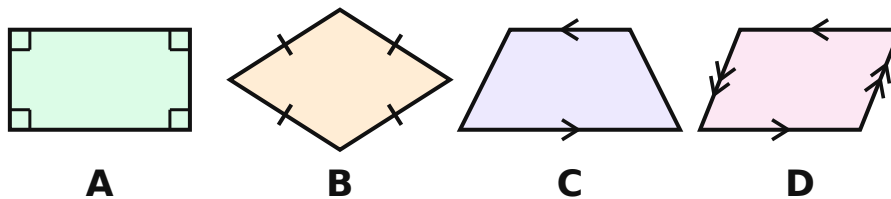
Solve. In the tree diagram, which shape belongs in the box with the question mark? It is a parallelogram with 4 right angles.



A tree diagram of the quadrilateral family.

Exercise 13 - Two pairs of parallel sides

Solve. Which of the shapes A, B, C and D have two pairs of parallel sides?



Shapes A, B, C and D.

Exercise 14 - Square or rhombus

Explain why every square is also a rhombus.

Exercise 15 - Picture frame

Solve. Maya's picture frame has 4 equal sides and 4 right angles. List all the names that fit the frame.

Exercise 16 - Garden bed

Solve. Jamal's garden bed is 8 feet long and 3 feet wide, and all four corners are right angles. Is it a square? What is the best name for the shape?

Exercise 17 - Road sign

Solve. A warning sign is a triangle with all three sides 12 inches long and each angle 60° . Classify it by sides and by angles.

Exercise 18 - Rhombus must be a square

Solve. Priya says, "A rhombus must be a square." Show that she is wrong using a rhombus with sides 5 cm and angles of 60° and 120° .

Exercise 19 - Cutting a triangle

Solve. Diego cuts a triangle with sides 9 in, 12 in and 15 in. It has one right angle. (a) Classify it by sides. (b) Classify it by angles. (c) Find its perimeter.

Exercise 20 - Quilt patches

Solve. Aisha's quilt has triangle patches with sides 5 in, 5 in and 8 in, and rhombus patches with sides of 7 in. (a) Classify the triangle by its sides. (b) Find the perimeter of one triangle patch. (c) Find the perimeter of one rhombus patch. (d) Which patch has the greater perimeter, and by how much?