

Grade 3 · Quadrilaterals and Partitioning Shapes · Worksheet

Common Core 3.G.A.1, 3.G.A.2 · mathovore.fr

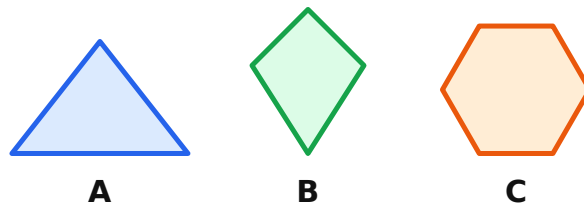
Name: _____ Date: ____/____/____ Score: _____

These 24 problems practice sorting quadrilaterals and partitioning shapes. Work on rhombuses, rectangles and squares first, then move to cutting shapes into parts with equal areas and naming each part as a unit fraction. The set follows Common Core 3.G.A.1 and 3.G.A.2. The last six problems are word problems.

Grade 3 Common Core: 3.G.A.1 · 3.G.A.2

Problem 1: Count the sides

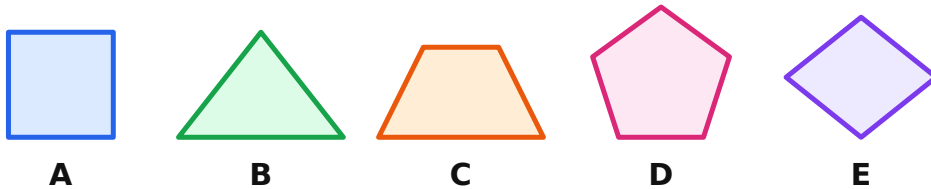
Count the sides of each shape. Then name the letter of the quadrilateral.



Shapes A, B and C.

Problem 2: Spot the quadrilaterals

Write the letters of all the quadrilaterals.



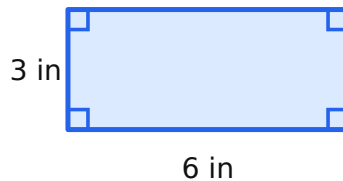
Five shapes.

Problem 3: Sides and corners

Complete the sentence. A quadrilateral has ____ sides and ____ vertices.

Problem 4: Right angles in a rectangle

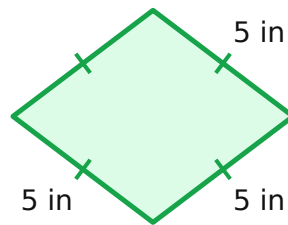
Look at the rectangle. How many right angles does it have? Which sides have the same length?



A rectangle that is 6 inches long and 3 inches tall.

Problem 5: Sides of a rhombus

The tick marks on the rhombus show equal sides. Three sides are 5 inches long. How long is the fourth side?



A rhombus. The tick marks show that all 4 sides are equal.

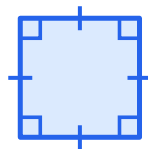
Problem 6: True or false?

Write true or false for each statement.

- a. A square has 4 equal sides.
- b. A square has 4 right angles.
- c. A rectangle always has 4 equal sides.
- d. A rhombus must have 4 right angles.

Problem 7: Name the shape

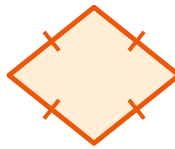
Tick marks show equal sides. Small squares show right angles. Name each shape: square, rectangle, rhombus, or other quadrilateral.



A



B



C



D

Shapes A to D.

Problem 8: Shared attributes

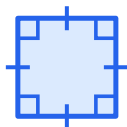
What attribute do squares and rectangles share? What attribute do squares and rhombuses share?

Problem 9: The square family

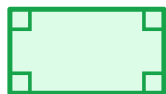
A square belongs to two other groups of quadrilaterals. Name them and explain why.

Problem 10: Sort the shapes

Tick marks show equal sides and small squares show right angles. List the letters of all rhombuses, then all rectangles, then the shapes that are neither.



A



B



C



D



E

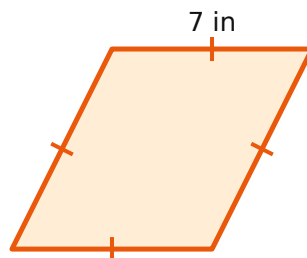


F

Shapes A to F.

Problem 11: Is it a rhombus?

All four sides of this shape are 7 inches long, as the tick marks show. None of the corners are right angles. Is it a rhombus? Is it a square?



All 4 sides are equal. No corner is a right angle.

Problem 12: Rectangle clues

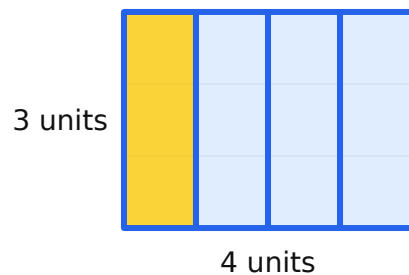
A shape has 4 sides measuring 9 in, 4 in, 9 in and 4 in. It has 4 right angles. Name the shape. Is it a square?

Problem 13: Draw a quadrilateral

Draw a quadrilateral that is not a rhombus, a rectangle or a square. Label its vertices.

Problem 14: Four equal parts

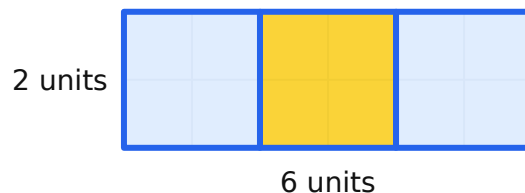
The rectangle is cut into 4 equal parts. One part is shaded. The rectangle has 12 square units in all. What fraction of the rectangle is shaded? What is the area of the shaded part?



4 equal parts. One is shaded.

Problem 15: Thirds

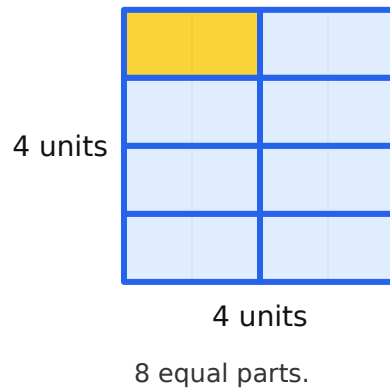
This rectangle is cut into 3 equal parts. It has 12 square units in all. Write the fraction for one part and its area.



3 equal parts.

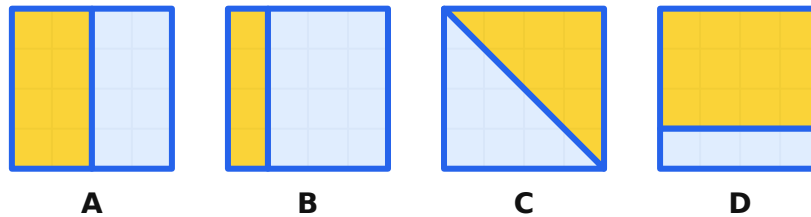
Problem 16: Eighths

A square with 16 square units is cut into 8 equal parts. What fraction is each part? What is the area of each part?



Problem 17: Which are halves?

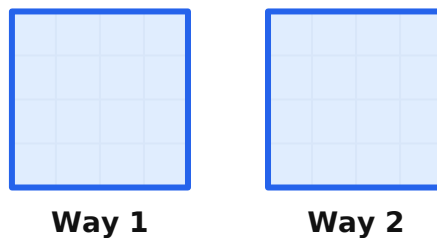
Each square has 16 square units. Which squares are cut into two parts with equal areas? Write the letters.



Squares A to D.

Problem 18: Two ways to make fourths

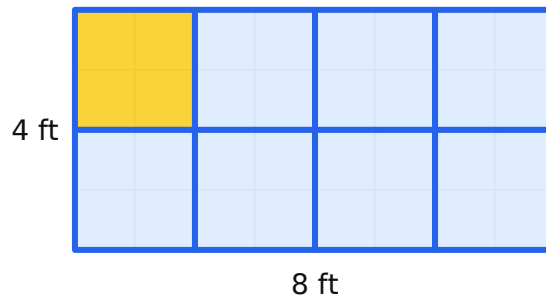
Draw two different ways to cut a square into 4 parts with equal areas. Use a new square for each way.



Two empty squares.

Problem 19: Maya's garden

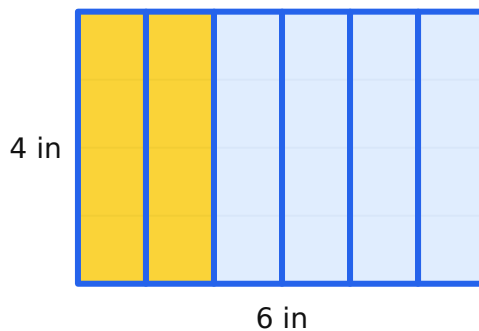
Maya's rectangular garden is 8 feet long and 4 feet wide. She splits it into 8 equal sections for 8 kinds of vegetables. What is the area of the garden? What is the area of one section? What fraction of the garden is one section?



The garden in 8 equal sections.

Problem 20: Diego's brownies

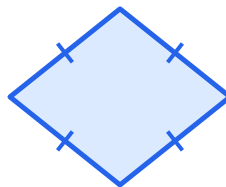
Diego bakes brownies in a pan that is 6 inches by 4 inches. He cuts the pan into 6 equal pieces. Liam eats 2 pieces. What is the area of one piece? How many square inches of brownie did Liam eat?



The two shaded pieces are the ones Liam ate.

Problem 21: Jamal's claim

Jamal draws a shape with 4 equal sides and no right angles. He says, "It is a square." Is Jamal correct? Name the shape.

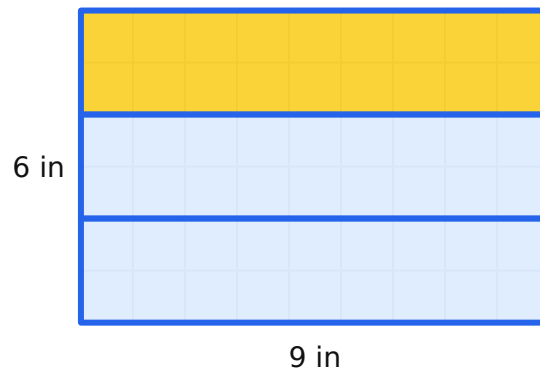


Jamal's shape

Jamal's shape: 4 equal sides and no right angles.

Problem 22: Aisha's flag

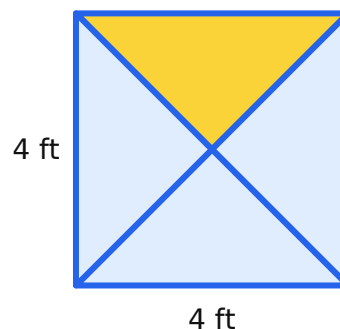
Aisha makes a flag that is 9 inches long and 6 inches tall. She cuts it into 3 stripes with equal areas. Find the area of the whole flag, the area of one stripe, and the fraction of the flag that one stripe covers.



Three equal stripes.

Problem 23: Priya's quilt

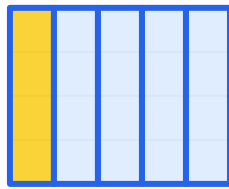
Priya sews a square quilt that is 4 feet on each side. She cuts it with both diagonals into 4 triangles with equal areas. What is the area of the quilt? What is the area of one triangle?



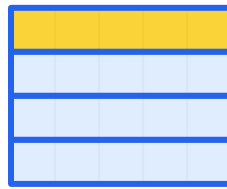
The two diagonals make 4 equal triangles.

Problem 24: Mei and Noah's cakes

Mei and Noah each have a cake that is 5 inches by 4 inches. Mei cuts hers into 5 equal pieces. Noah cuts his into 4 equal pieces. Whose pieces are bigger, and by how many square inches?



Mei



Noah

Mei's cake and Noah's cake.