

Grade 4 - Lines, Rays and Classifying Shapes - Worksheet

Common Core 4.G.A.1, 4.G.A.2 · maths-pdf.fr/en/

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

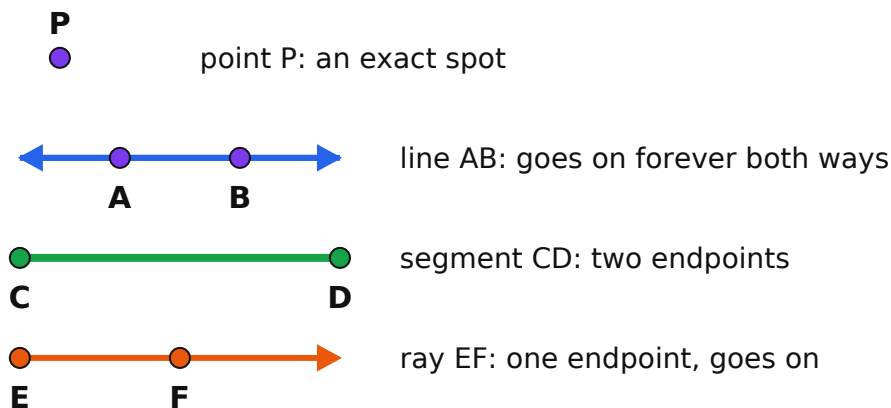
These 20 problems practice naming points, lines, segments, and rays, spotting parallel and perpendicular lines, and classifying angles. You will also sort triangles and quadrilaterals by their angles and parallel sides. They match Common Core 4.G.A.1 and 4.G.A.2.

The last six problems are real-world word problems about maps, frames, ramps, clocks, tiles, and a flag.

Grade 4 · Common Core State Standards: **4.G.A.1, 4.G.A.2**

Exercise 1 - Name the figures

Name each figure: a straight path with two endpoints, a straight path with one endpoint that goes on forever, and a straight path that goes on forever both ways.



Point, line, segment, and ray.

Exercise 2 - Count the endpoints

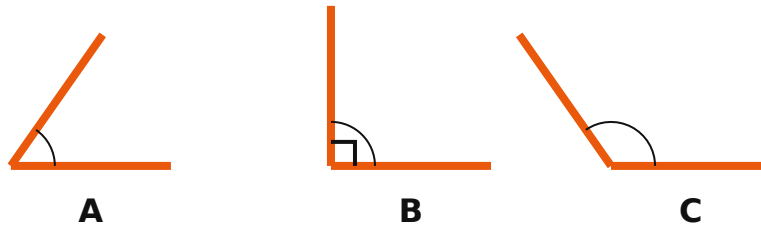
How many endpoints does each figure have: a line segment, a ray, and a line?

Exercise 3 - Parallel or perpendicular

Write *parallel* or *perpendicular*: (a) two opposite edges of a ruler, (b) the wall and the floor where they meet, (c) the two rails of a train track.

Exercise 4 - Name the angles

Is each angle acute, right, or obtuse? The angle measures are 55° , 90° , and 125° .



Angles A, B, and C.

Exercise 5 - Draw a segment

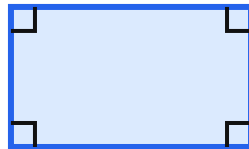
Draw a line segment. Label its endpoints M and N and write its name.

Exercise 6 - Draw perpendicular lines

Draw two lines that are perpendicular. Mark the right angle with a small square.

Exercise 7 - Count the right angles

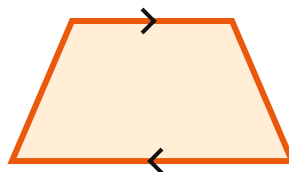
How many right angles does this rectangle have?



Rectangle.

Exercise 8 - Count parallel sides

How many pairs of parallel sides does this trapezoid have?



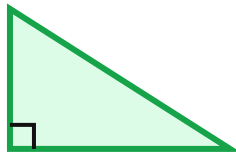
Trapezoid.

Exercise 9 - Classify triangles

Classify each triangle as acute, right, or obtuse using its angles: (a) 40° , 60° , 80° ; (b) 35° , 55° , 90° ; (c) 25° , 35° , 120° .

Exercise 10 - Is it a right triangle?

Is this triangle a right triangle? Explain.



Triangle.

Exercise 11 - Name the quadrilateral

A quadrilateral has 4 right angles and 4 equal sides. What is its name?

Exercise 12 - Complete the table

Complete the table with the number of pairs of parallel sides and the number of right angles.

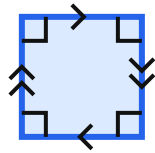
Shape	Pairs of parallel sides	Right angles
Rectangle	?	?
Slanted parallelogram	?	?
Trapezoid with slanted sides	?	?
Right triangle	?	?

Exercise 13 - Always, sometimes, never

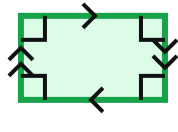
Write *always*, *sometimes*, or *never*: (a) A square has four right angles. (b) A triangle has two right angles. (c) A quadrilateral has a right angle.

Exercise 14 - Perpendicular corners

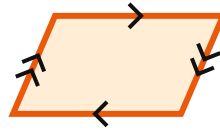
A rectangle has 4 corners. At each corner, two sides are perpendicular. How many pairs of perpendicular sides does a rectangle have?



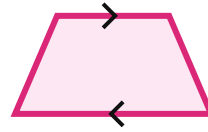
square



rectangle



parallelogram

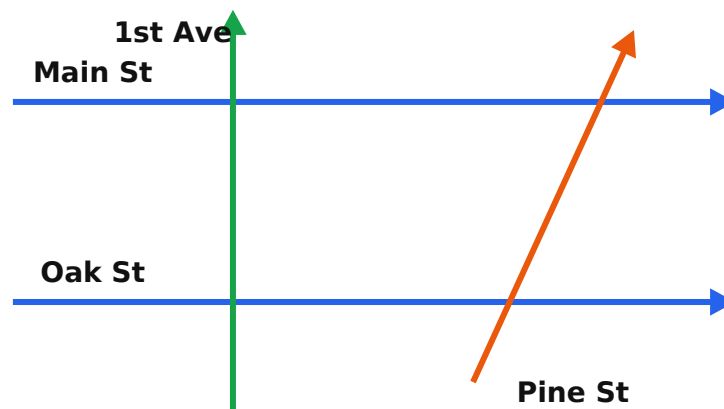


trapezoid

Quadrilaterals. Little squares mark right angles and arrows mark parallel sides.

Exercise 15 - City map

Look at the map. Main St and Oak St run side by side. 1st Ave crosses both at right angles. Name a pair of parallel streets and a pair of perpendicular streets.



City map.

Exercise 16 - Picture frame

Jamal's picture frame has four square corners. Opposite sides are parallel. The long sides are 12 in and the short sides are 8 in. What shape is it? Is it a square?

Exercise 17 - Wooden ramp

The side of Priya's wooden ramp is a triangle with angles of 90° , 30° , and 60° . Classify the triangle. How many acute angles does it have?

Exercise 18 - Clock angles

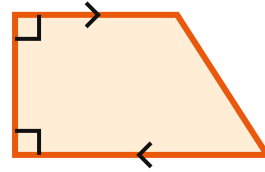
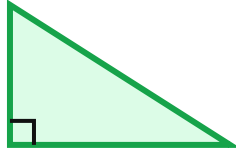
On a clock, each number is 30° from the next. At each time, name the angle made by the hour and minute hands as acute, right, or obtuse: 2:00, 3:00, and 5:00.

Exercise 19 - Floor tiles

Ethan's kitchen tiles each have 4 sides. Opposite sides are parallel, and no angle is a right angle. Classify the tile. Is it a rectangle? Why or why not?

Exercise 20 - Flag design

Diego sews three shapes on a flag: a rectangle, a right triangle, and a trapezoid with exactly two right angles. How many right angles are on the flag in all?



Diego's flag pieces.