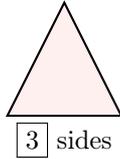


2D SHAPES

A PLANE GEOMETRY

A.1 FINDING THE SIDES

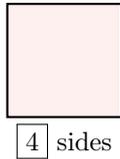
Ex 1: How many sides does this shape have?



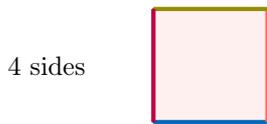
Answer: Count each straight line to find the number of sides.



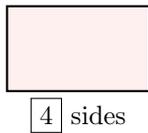
Ex 2: How many sides does this shape have?



Answer: Count each straight line to find the number of sides.



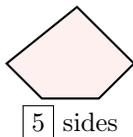
Ex 3: How many sides does this shape have?



Answer: Count each straight line to find the number of sides.



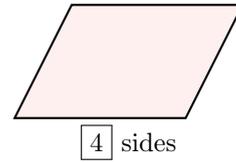
Ex 4: How many sides does this shape have?



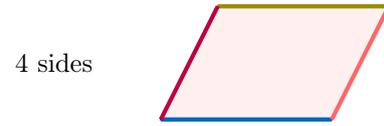
Answer: Count each straight line to find the number of sides.



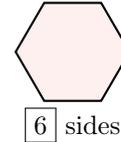
Ex 5: How many sides does this shape have?



Answer: Count each straight line to find the number of sides.



Ex 6: How many sides does this shape have?

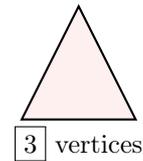


Answer: Count each straight line to find the number of sides.

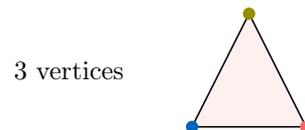


A.2 FINDING THE VERTICES

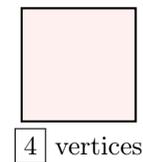
Ex 7: How many vertices does this shape have?



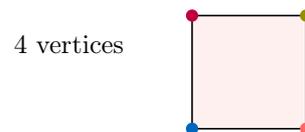
Answer: Count each point where two sides meet



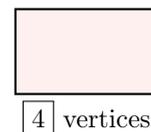
Ex 8: How many vertices does this shape have?



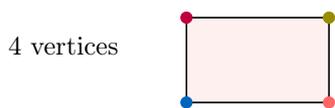
Answer: Count each point where two sides meet.



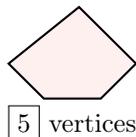
Ex 9: How many vertices does this shape have?



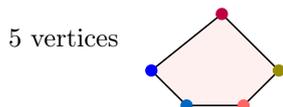
Answer: Count each point where two sides meet.



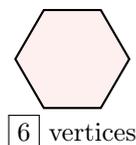
Ex 10: How many vertices does this shape have?



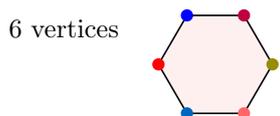
Answer: Count each point where two sides meet.



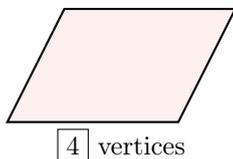
Ex 11: How many vertices does this shape have?



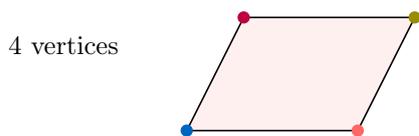
Answer: Count each point where two sides meet.



Ex 12: How many vertices does this shape have?



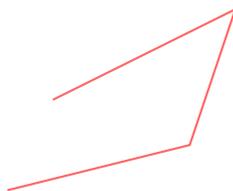
Answer: Count each point where two sides meet.



B POLYGONS

B.1 IDENTIFYING POLYGONS

MCQ 13: Is this figure a polygon?

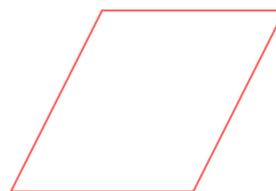


Pick the correct answer:

- Yes
- No

Answer: A polygon is a closed shape with straight sides. This figure is not a polygon because the lines do not connect back to the starting point, so the shape is not closed.

MCQ 14: Is this figure a polygon?

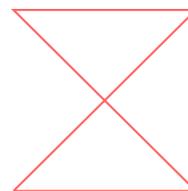


Pick the correct answer:

- Yes
- No

Answer: A polygon is a closed shape with only straight sides that do not cross. This figure is a polygon because it is closed, has straight lines, and its lines do not cross.

MCQ 15: Is this figure a polygon?

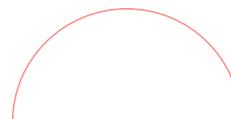


Pick the correct answer:

- Yes
- No

Answer: A polygon is a closed shape with straight sides that do not cross. This figure is not a polygon because its lines cross each other.

MCQ 16: Is this figure a polygon?

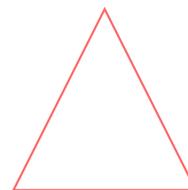


Pick the correct answer:

- Yes
- No

Answer: A polygon is a closed shape with only straight sides. This figure is not a polygon because it has a curved line.

MCQ 17: Is this figure a polygon?

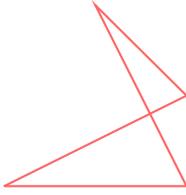


Pick the correct answer:

- Yes
- No

Answer: A polygon is a closed shape with only straight sides that do not cross. This figure is a polygon because it is closed, has straight lines, and its lines do not cross.

MCQ 18: Is this figure a polygon?

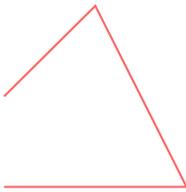


Pick the correct answer:

- Yes
- No

Answer: A polygon is a closed shape with only straight sides that do not cross. This figure is not a polygon because its lines cross each other.

MCQ 19: Is this figure a polygon?



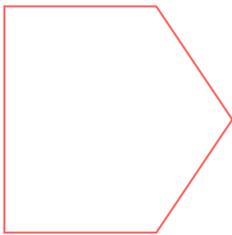
Pick the correct answer:

- Yes
- No

Answer: A polygon is a closed shape with only straight sides. This figure is not a polygon because the lines do not connect back to the starting point, so the shape is not closed.

B.2 NAMING POLYGONS

MCQ 20: What is the name of this polygon?

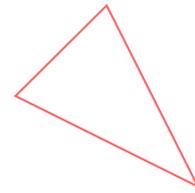


Pick the correct answer:

- Triangle
- Quadrilateral
- Pentagon
- Hexagon

Answer: A polygon is named by the number of its sides. This figure has 5 sides, so it is a pentagon.

MCQ 21: What is the name of this polygon?

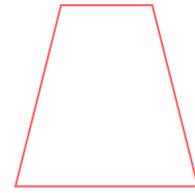


Pick the correct answer:

- Triangle
- Quadrilateral
- Pentagon
- Hexagon

Answer: A polygon is named by the number of its sides. This figure has 3 sides, so it is a triangle.

MCQ 22: What is the name of this polygon?

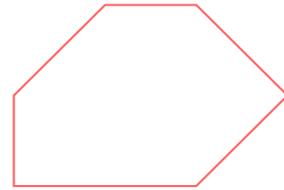


Pick the correct answer:

- Triangle
- Quadrilateral
- Pentagon
- Hexagon

Answer: A polygon is named by the number of its sides. This figure has 4 sides, so it is a quadrilateral.

MCQ 23: What is the name of this polygon?

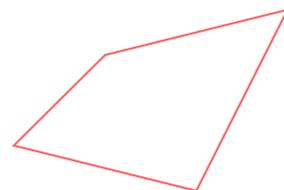


Pick the correct answer:

- Triangle
- Quadrilateral
- Pentagon
- Hexagon

Answer: A polygon is named by the number of its sides. This figure has 6 sides, so it is a hexagon.

MCQ 24: What is the name of this polygon?



Pick the correct answer:

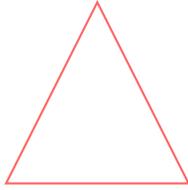
- Triangle
- Quadrilateral
- Pentagon
- Hexagon

Answer: A polygon is named by the number of its sides. This figure has 4 sides, so it is a quadrilateral.

B.3 DRAWING POLYGONS

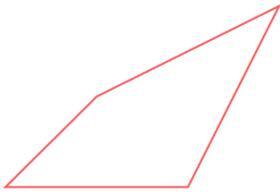
Ex 25: Draw a triangle.

Answer: A triangle is a polygon with 3 sides. To draw a triangle, connect three straight lines to form a closed shape with no crossing lines. For example:



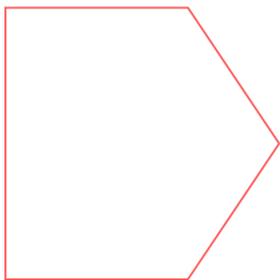
Ex 26: Draw a quadrilateral.

Answer: A quadrilateral is a polygon with 4 sides. To draw a quadrilateral, connect four straight lines to form a closed shape with no crossing lines. For example:



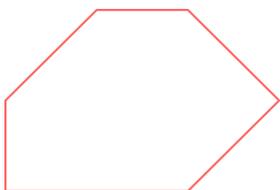
Ex 27: Draw a pentagon.

Answer: A pentagon is a polygon with 5 sides. To draw a pentagon, connect five straight lines to form a closed shape with no crossing lines. For example:



Ex 28: Draw a hexagon.

Answer: A hexagon is a polygon with 6 sides. To draw a hexagon, connect six straight lines to form a closed shape with no crossing lines. For example:



C DRAWING SHAPES ON GRAPH PAPER

C.1 DRAWING SIMPLE SHAPES

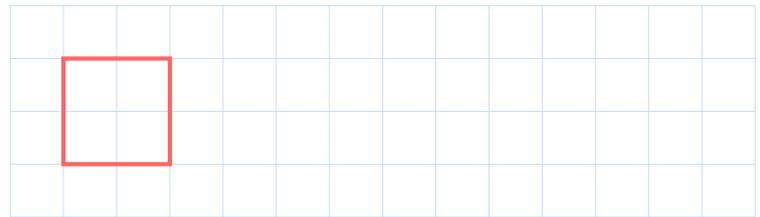
Ex 29: Can you draw this triangle?



Answer: A triangle is a shape with 3 sides and 3 vertices. To draw a triangle like this one, use the grid. You can place it anywhere on the grid. First, put the vertices. Then use your ruler to draw the sides.



Ex 30: Can you draw this square?



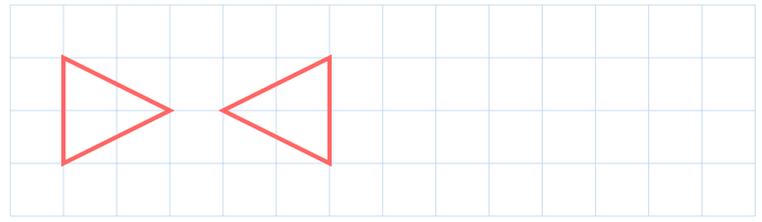
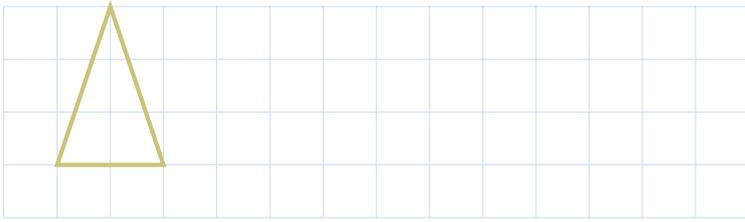
Answer: A square is a shape with 4 equal sides and 4 vertices. To draw a square like this one, use the grid. You can place it anywhere on the grid. First, put the vertices. Then use your ruler to draw the sides.



Ex 31: Can you draw this Christmas tree?



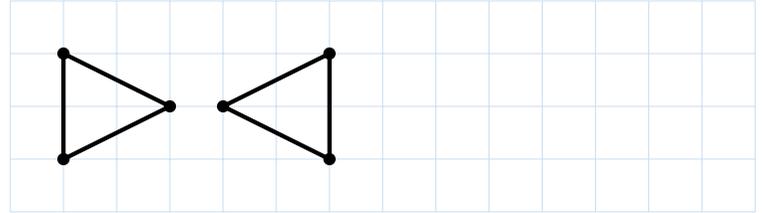
Answer: A Christmas tree is a green triangle with 3 sides and 3 vertices. To draw a Christmas tree like this one, use the grid. You can place it anywhere on the grid. First, put the vertices. Then use your ruler to draw the sides.



Ex 32: Can you draw this rectangle?

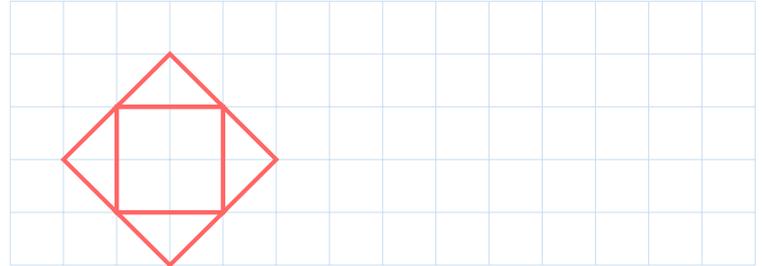
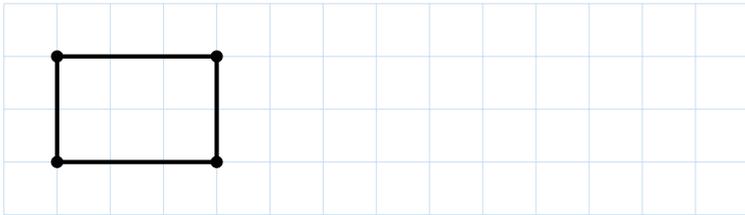


Answer: Two triangles are shapes with 3 sides and 3 vertices each. To draw two triangles like these, use the grid. You can place them anywhere on the grid. First, put the vertices. Then use your ruler to draw the sides.



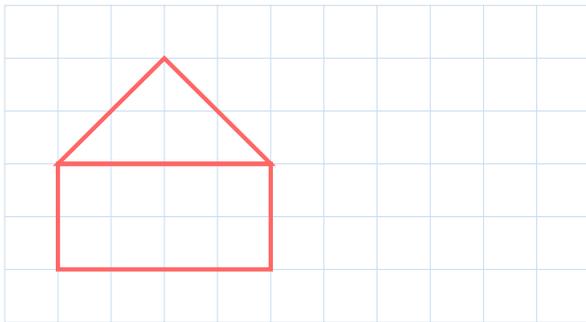
Answer: A rectangle is a shape with 4 sides and 4 vertices. To draw a rectangle like this one, use the grid. You can place it anywhere on the grid. First, put the vertices. Then use your ruler to draw the sides.

Ex 35: Can you draw this square with four triangles?



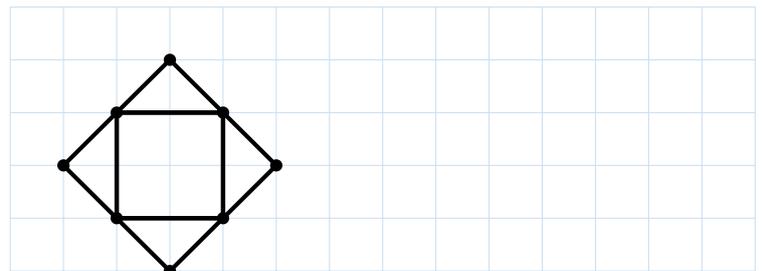
C.2 DRAWING COMPOSITE SHAPES

Ex 33: Can you draw a house like this one?

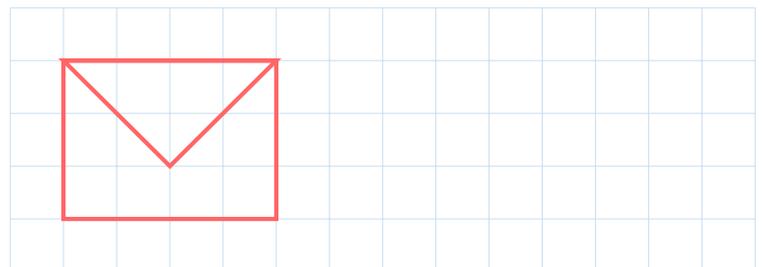
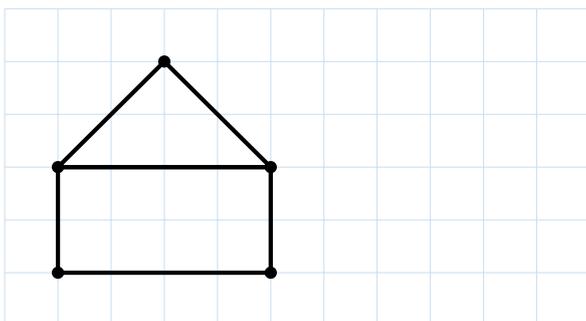


Answer: A square with four triangles is a shape with a central square and a triangle on each side. To draw a square with four triangles like this one, use the grid. You can place it anywhere on the grid. First, put the vertices. Then use your ruler to draw the sides.

Answer: A house is a shape with a rectangle base and a triangle roof. To draw a house like this one, use the grid. You can place it anywhere on the grid. First, put the vertices. Then use your ruler to draw the sides.



Ex 36: Can you draw this envelope?



Answer: An envelope is a shape with a rectangle and a triangle inside it. To draw an envelope like this one, use the grid. You can place it anywhere on the grid. First, put the vertices. Then use your ruler to draw the sides.

Ex 34: Can you draw these two triangles?

