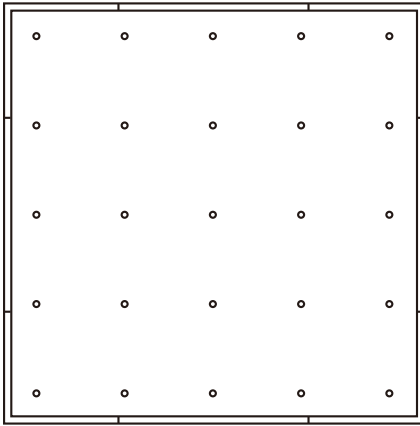




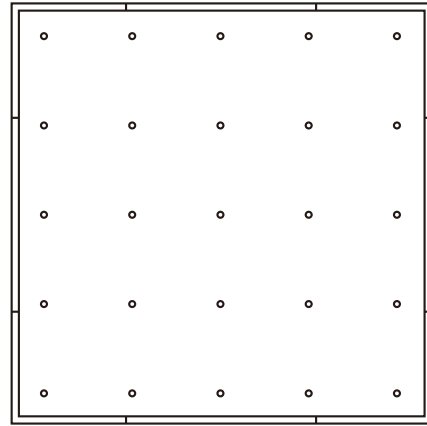
Line Segments

Use your geoboard to make pairs of line segments that touch exactly eight pegs. (The line segments do not need to be the same length.) Record your line segments below and write whether they are **parallel, intersecting, or perpendicular**.

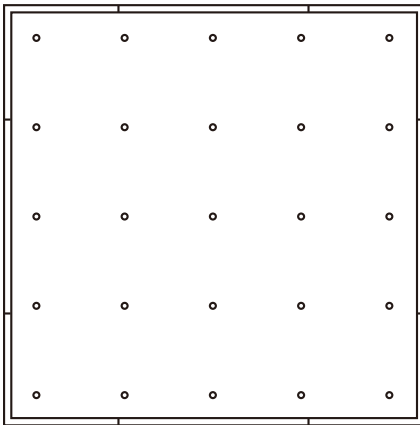
1.



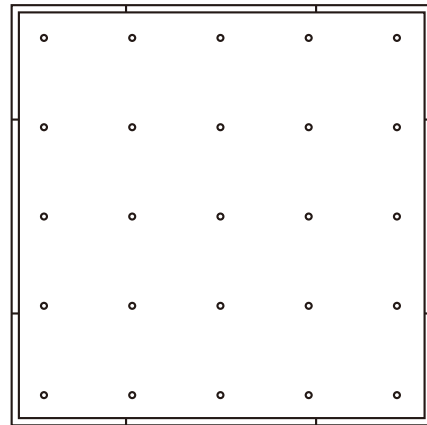
2.



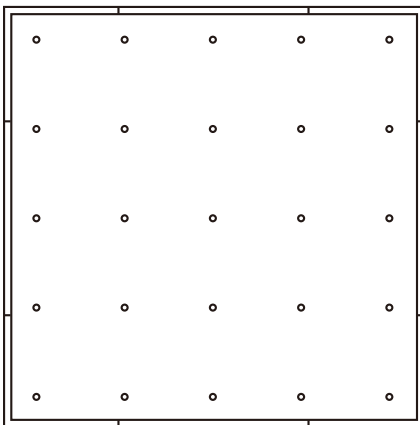
3.



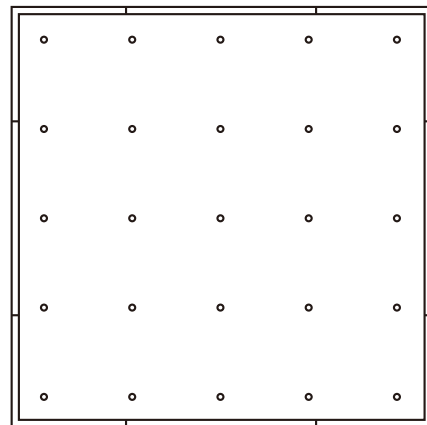
4.



5.



6.

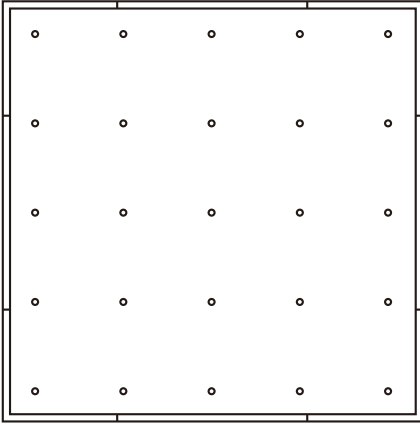


Angles

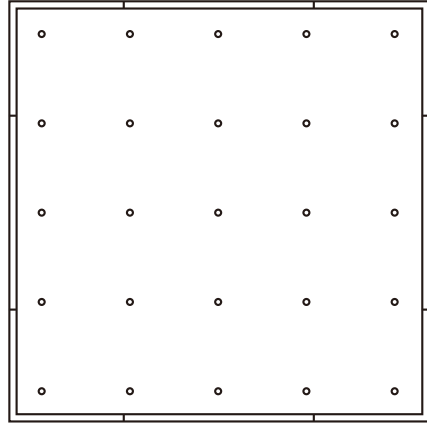


Use your geoboard to make different types of angles: **obtuse**, **acute**, and **right**. Record your angles and write the type of angle below.

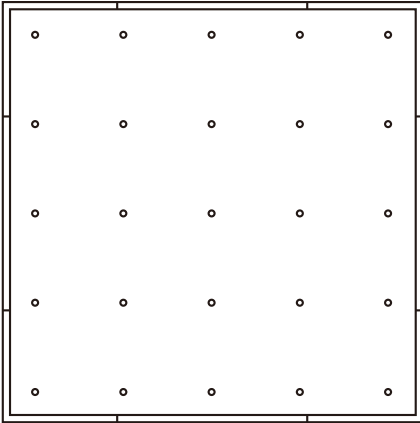
1.



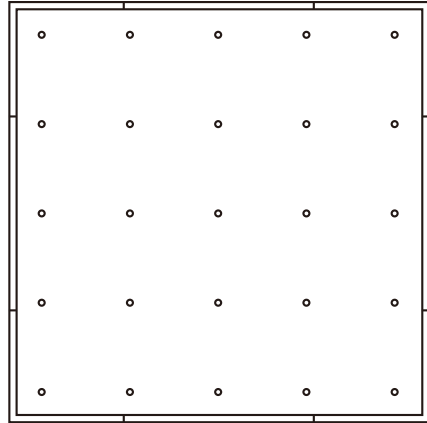
2.



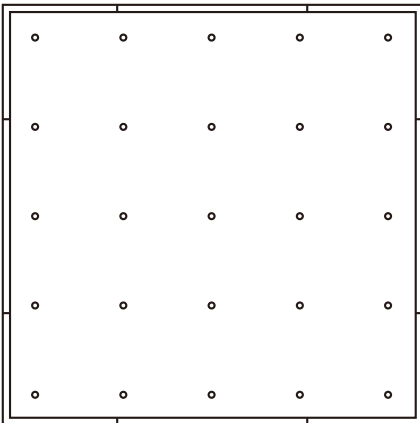
3.



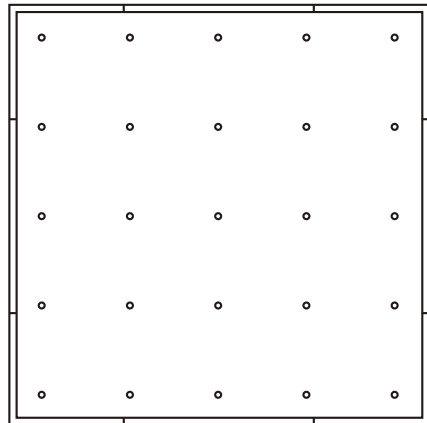
4.



5.



6.

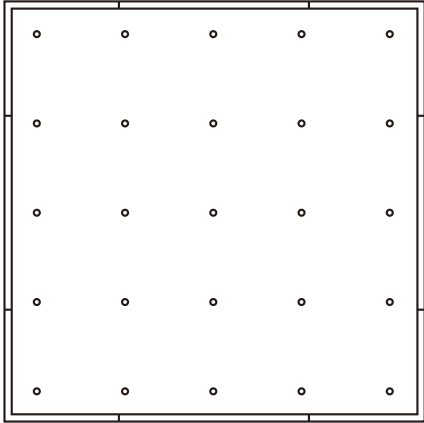




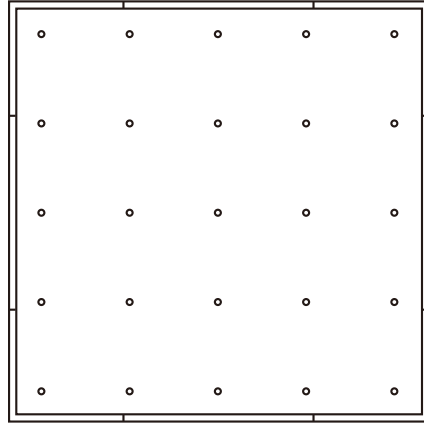
Triangles

Use your geoboard to make different types of triangles: **obtuse, acute, and right**. Record your triangles in the spaces below and write the type of triangle.

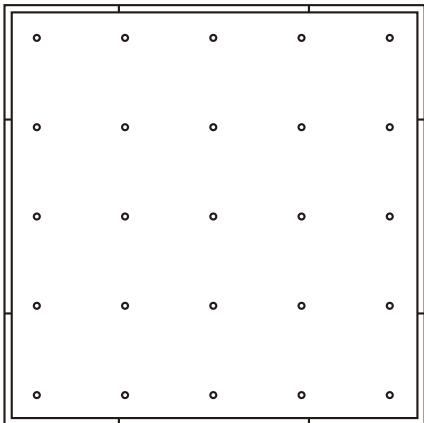
1.



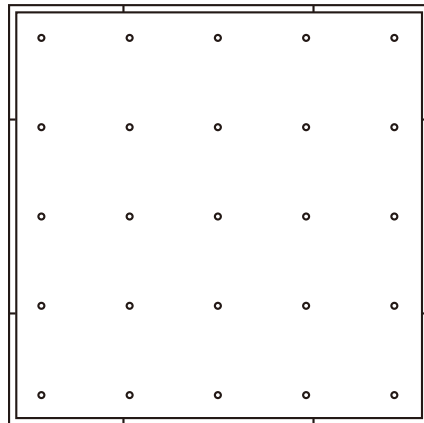
2.



3.



4.



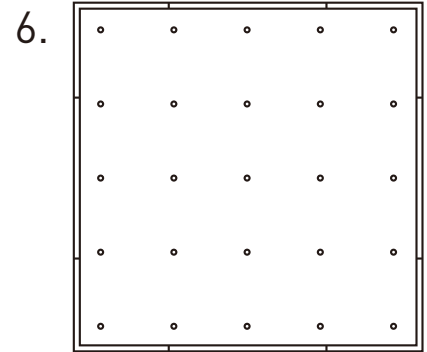
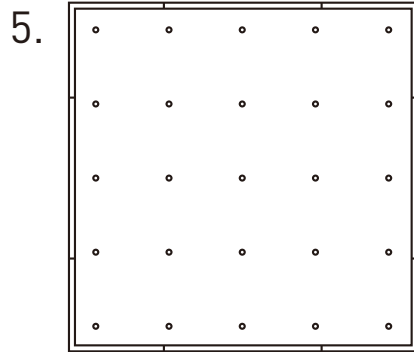
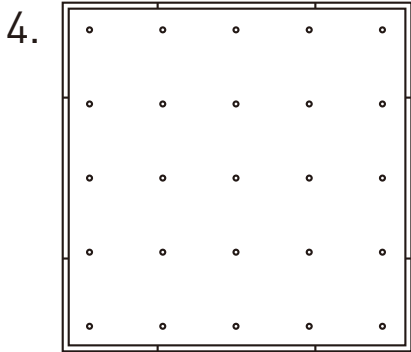
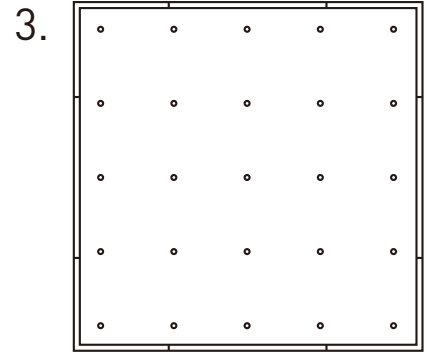
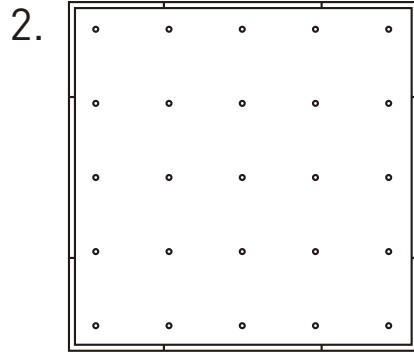
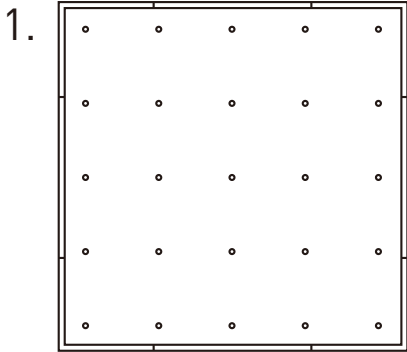
5. What is the maximum number of right angles in a triangle? Explain.

6. Is it possible to have a triangle with parallel sides? Why or why not?



Quadrilaterals

Use your geoboard to make different quadrilaterals (closed shapes with four sides), including: **square, rectangle, rhombus, kite, parallelogram, and trapezoid**. Record the shapes in the spaces below and write the type of quadrilateral.



5. If a quadrilateral has two sets of parallel sides, does it have to have right angles? Explain.

6. What is the maximum number of right angles in a quadrilateral? Explain.

7. Is every square a rectangle? Is every rectangle a square? Explain.

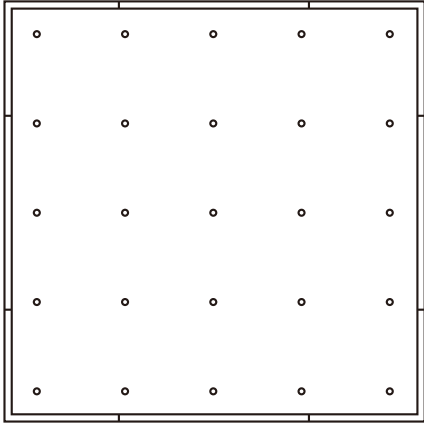


Polygons

Create polygons (closed shapes with multiple sides) to satisfy the various requirements.

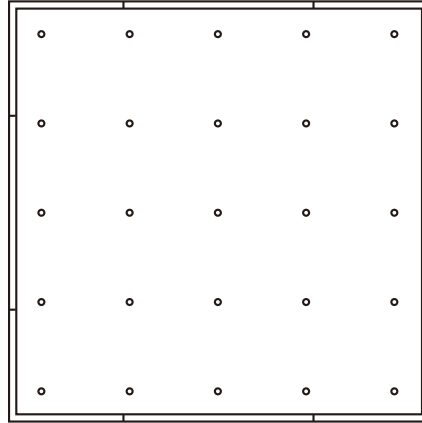
Make a three-sided polygon with one square corner and no two sides the same length.

1.



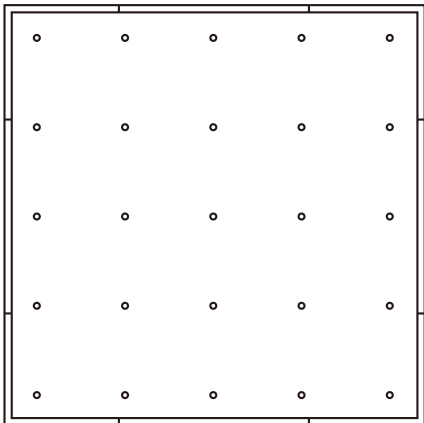
Make a four-sided polygon with no parallel sides.

2.



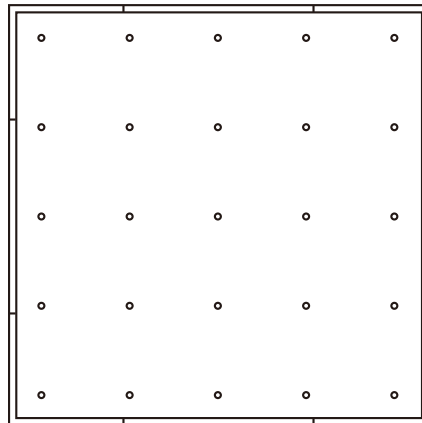
Make a five-sided polygon with exactly two parallel sides.

3.



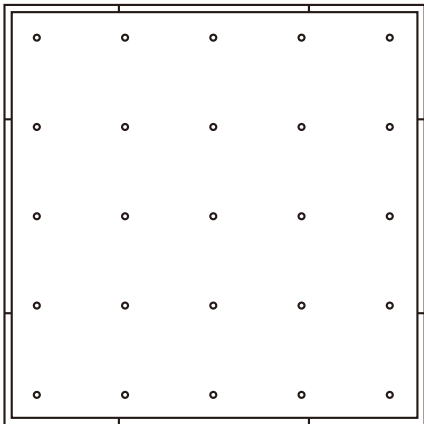
Make a six-sided polygon with three pairs of parallel sides.

4.



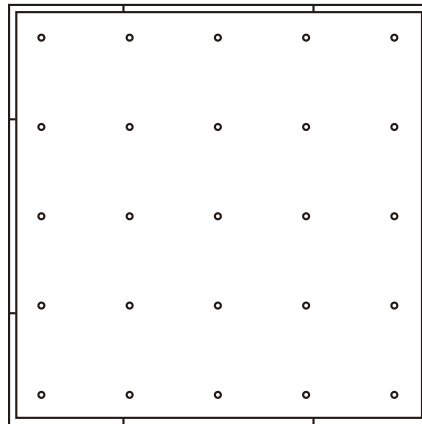
Make a four-sided polygon in which all sides have different lengths.

5.



Make a polygon with as many sides as possible.

6.

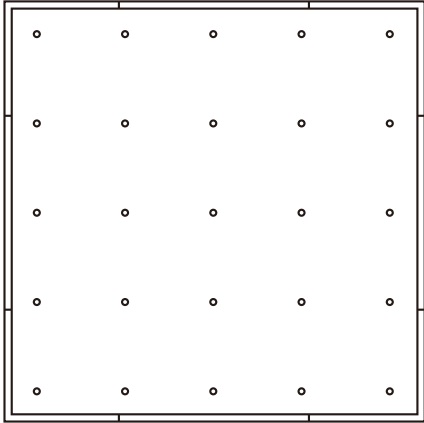


Symmetry, Congruence, and Similarity

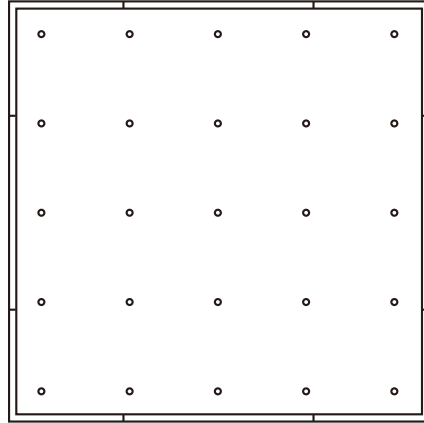


Create shapes that have vertical and/or horizontal **symmetry**.

1.

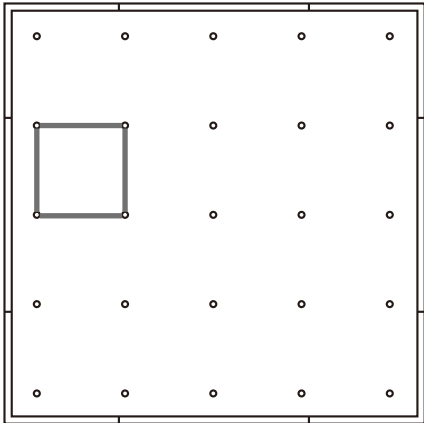


2.

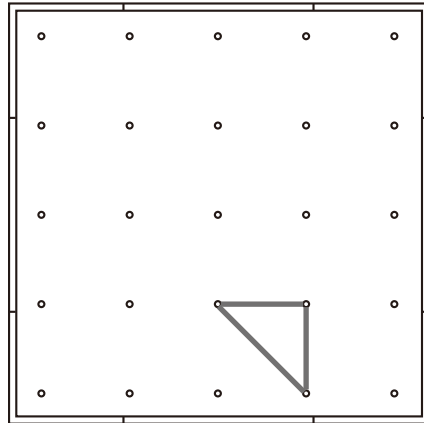


Create as many **congruent** shapes as possible on the geoboard, then record your shapes here.

3.

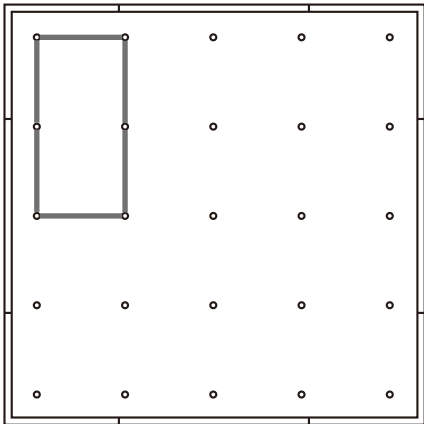


4.

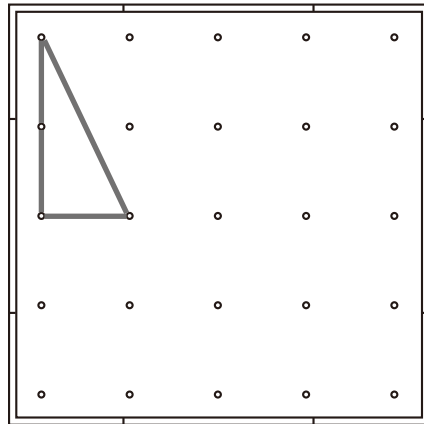


Create as many **similar** shapes as possible on the geoboard, then record your shapes here.

5.

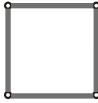
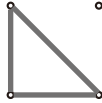


6.



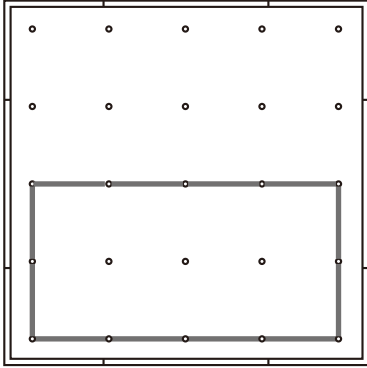


Area and Perimeter

	is 1 square unit.		is 0.5 square unit.
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Find the **area** and **perimeter** of each shape.

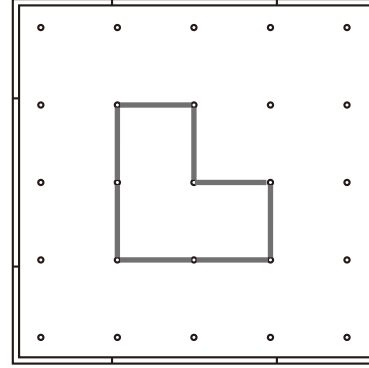
1.



Area: _____

Perimeter: _____

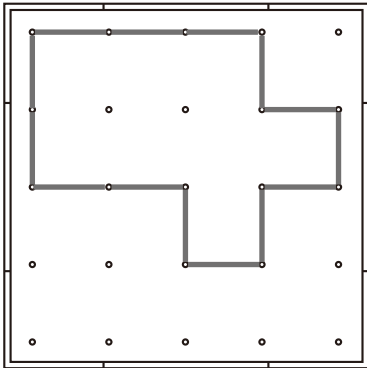
2.



Area: _____

Perimeter: _____

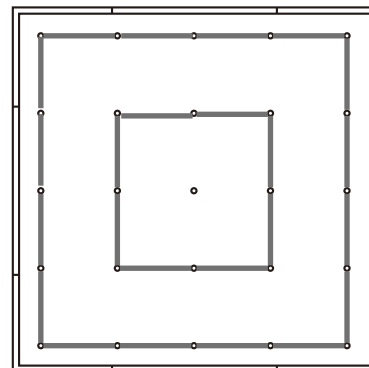
3.



Area: _____

Perimeter: _____

4.

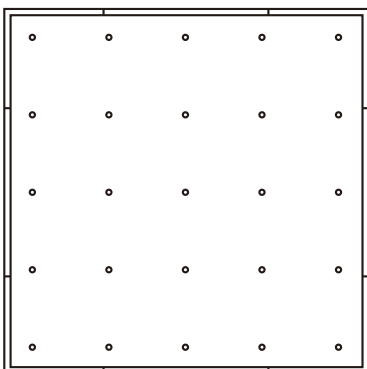


Area: _____

Perimeter: _____

Create your own shapes then calculate area and perimeter.

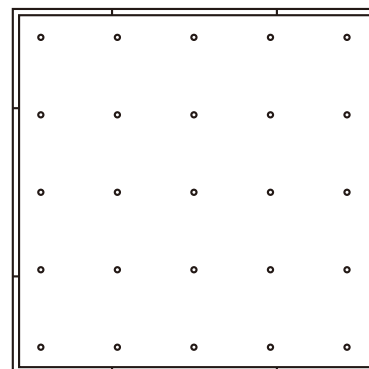
5.



Area: _____

Perimeter: _____

6.



Area: _____

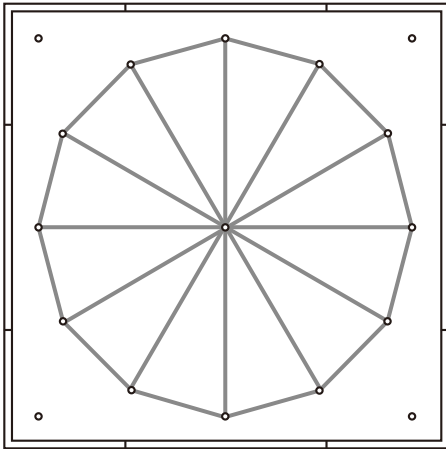
Perimeter: _____

Fractions of Circles

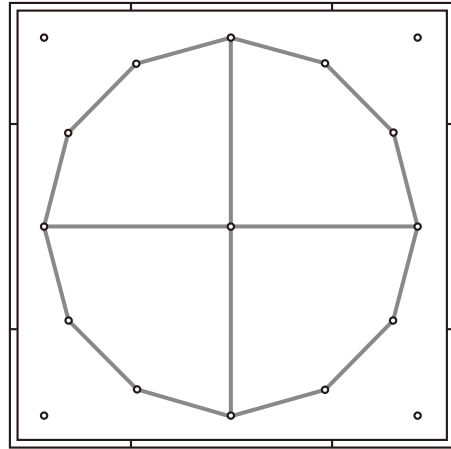


Each slice of the pie represents what **fraction of the whole** circle?

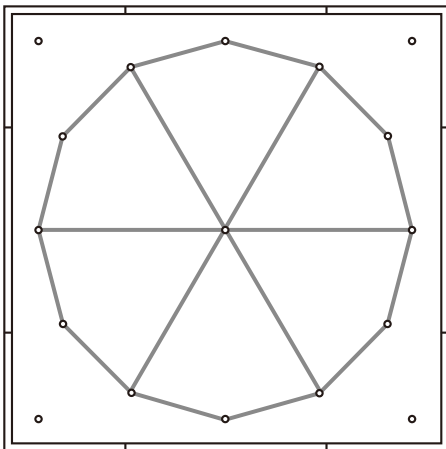
1.



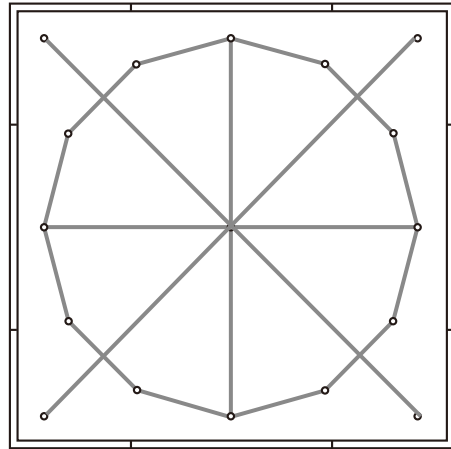
2.



3.

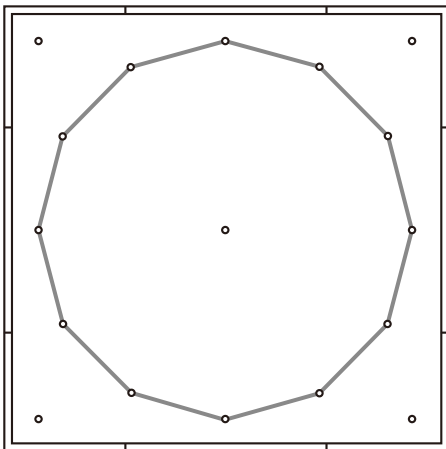


4.



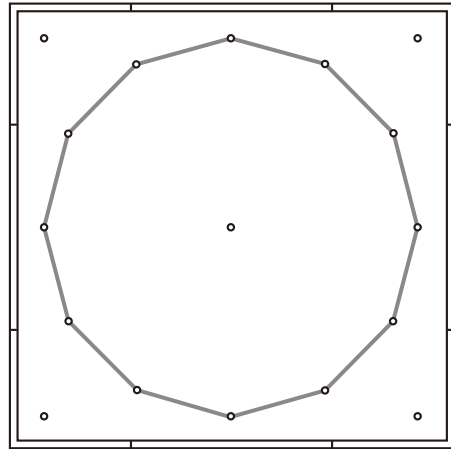
Use your geoboard to demonstrate **equivalent fractions**.

5.



_____ = _____

6.



_____ = _____