Study the following.

one-dimensional (**wuhn** duh-**men**-shuhn-uhl) – a straight line is one-dimensional. Also called 1-D. (The line that I drew was one-dimensional because it was straight.

two-dimensional – a flat shape like a circle, or a picture of a tree, is two-dimensional. Also called 2-D. (I drew a picture of a sun and it was two-dimensional.)

three-dimensional – a solid shape like a ball, or an actual tree is three-dimensional. Also called 3-D.

Say each word out loud and write it in the blank.

dimensional_____

Write each definition in your own words.

one-dimensional

two-dimensional

three-dimensional

Label each as 1-D, 2-D, or 3-D.

1. _____ a triangle drawn on paper.
2. _____ a line
3. _____a shoe box
4. _____ a blank line
5. _____ a square drawn on paper
6. _____ a house
7. _____ a picture of a house

Write two sentences using each word.

one-dimensional
1.

2.

two-dimensional
1.

2.

three-dimensional
1.

2.

Matching.

one-dimensional	a solid shape like a ball
two-dimensional	a flat shape like a circle
three-dimensional	a line

Study the following.

plane (**plane**) – a flat surface that goes on and on in all directions. Planes are two dimensional. (This piece of paper is part of a plane.)

figure (**fig**-yur) – a shape or an outline. (I drew a figure called a triangle.)

plane figure (**plane fig**-yur) – a figure that can be drawn on a plane, like a circle or the letter M. It is a two-dimensional figure. (He drew several plane figures on his paper.)

open figure (**oh**-puhn **fig**-yur) - a plane figure that doesn't connect back to where you started drawing. (The letter C is an open figure.)

closed figure (**klohzd fig**-yur) - a plane figure that when drawn, starts and stops at the same point. (The letter O is a closed figure.)

Say each word out loud and write it in the blank.

plane_____
figure_____
open_____
closed_____

Write each definition in your own words.
plane

figure

plane figure

open figure

closed figure

Write two sentences using each word.

plane
1.

2.

figure
1.

2.

plane figure
1.

2.

open figure
1.

2.

closed figure
1.

2.

Matching.

plane	a plane figure that doesn't connect back to where you started drawing.
figure	a flat surface that goes on and on in all directions
plane figure	a shape or an outline
open figure	a plane figure that when drawn, starts and stops at the same point.
closed figure	a figure that can be drawn on a plane, like a circle

Look around your house and find 5 flat surfaces that represent parts of planes. Write what you found. (example: the kitchen table top.)

1.
2.
3.
4.
5.

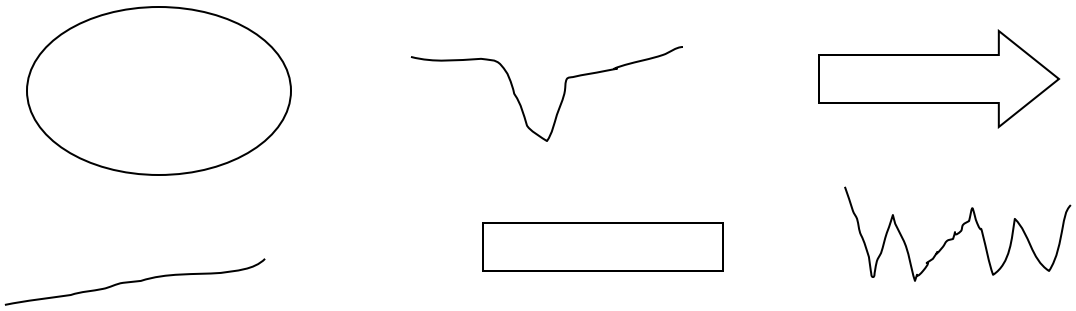
Draw three plane figures.

1.

2.

3.

Circle the open figures and put a square around the closed figures.



Draw three open figures.

1.

2.

3.

Draw three closed figures.

1.

2.

3.

Study the following.

poly- - this part of a word, means many.

-gon - this part of a word means angles.

polygon (**pol**-ee-gon) - a closed plane figure made of straight line segments. It has many (poly-) angles (–gon). (The rectangle I drew on the paper was a polygon with four angles.)

regular polygon (**reg**-yuh-lur **pol**-ee-gon) - a polygon with a regular shape, meaning all the sides are the same length and all the angles are the same size. (A square I drew is a regular polygon because all the sides are 2 inches, and all the angles were 90 degrees.)

Say each word out loud and write it in the blank.

polygon_____
regular_____

Write each definition in your own words.

polygon

regular polygon

Write two sentences using each word.

polygon
1.

2.

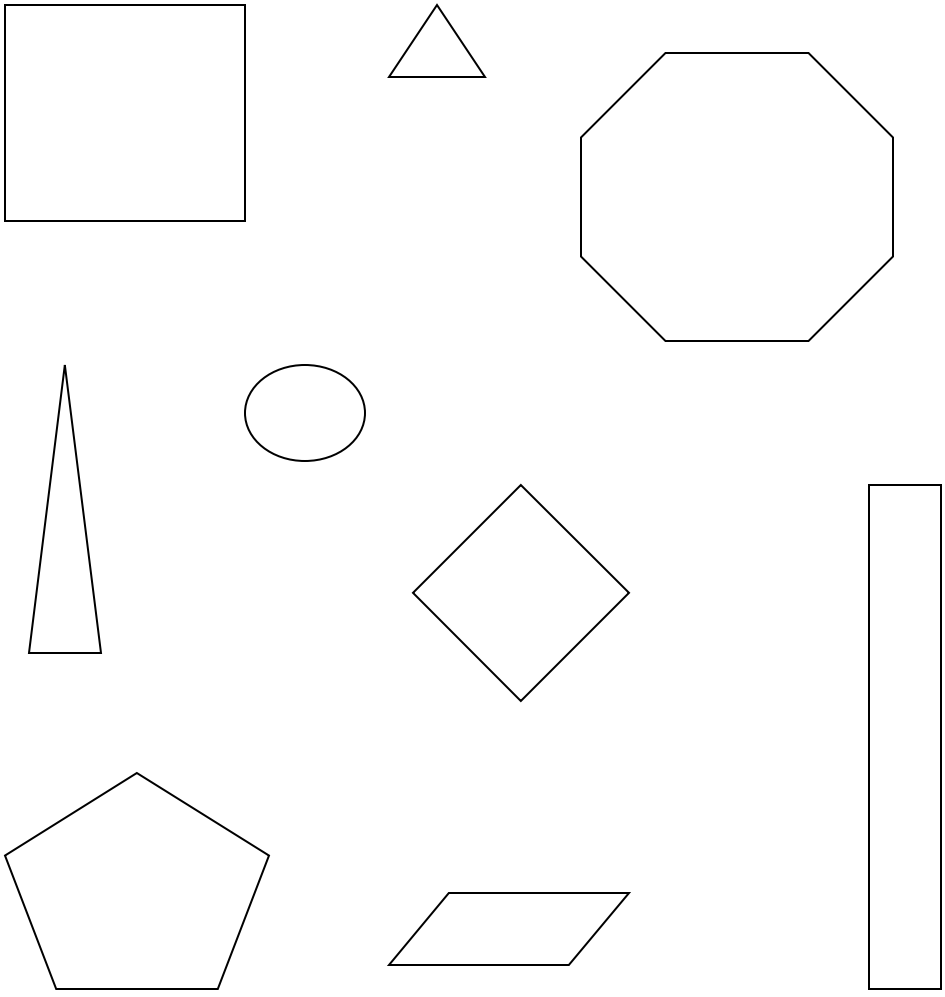
regular polygon
1.

2.

Matching.

poly-	this part of a word means angles.
-gon	this part of a word, means many
polygon	a polygon with all the sides the same length and all the angles the same size
regular polygon	a closed plane figure made of straight line segments

Circle the regular polygons.



Study the following.

Polygons have the same number of sides as angles, and are usually referred to by the number of sides.

triangle (**trye**-ang-guhl) – a polygon with 3 sides.

quadrilateral (kwahd-ruh-**lat**-ur-uhl) – a polygon with 4 sides.

pentagon (**pen**-tuh-gon) – a polygon with 5 sides.

hexagon (**hek**-suh-gon) – a polygon with 6 sides.

heptagon (**hep**-tuh-gon) – a polygon with 7 sides.

octagon (**ok**-tuh-gon) – a polygon with 8 sides.

nonagon (**non**-uh-gon) – a polygon with 9 sides.

decagon (**dek**-uh-gon) – a polygon with 10 sides.

Say each word out loud and write it in the blank.

triangle_____
quadrilateral_____
pentagon_____
hexagon_____
heptagon_____
octagon_____
nonagon_____
decagon_____

Draw one example of each.

triangle

quadrilateral

pentagon

hexagon

heptagon

octagon

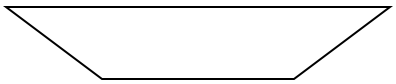
nonagon

decagon

Matching.

triangle	a polygon with 3 sides
hexagon	a polygon with 4 sides.
quadrilateral	a polygon with 5 angles.
nonagon	a polygon with 6 angles.
pentagon	a polygon with 7 sides.
heptagon	a polygon with 8 angles.
decagon	a polygon with 9 sides and 9 angles.
octagon	a polygon with 10 sides.

Name the following.

1. _____ 

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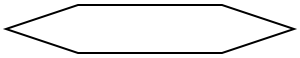
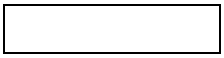
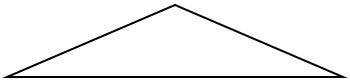
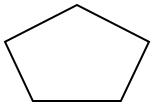
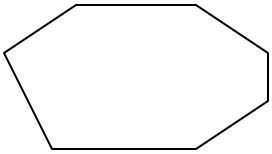
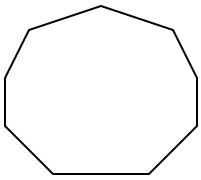
3. _____ 

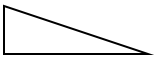
4. _____ 

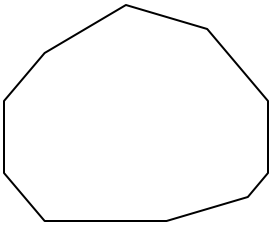
5. _____ 

6. _____ 

7. _____ 

8. _____ 

9. _____ 

10. _____ 

11. _____