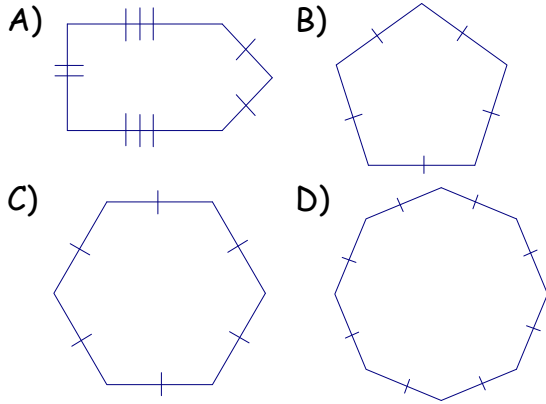


Polygons

~ 1 ~

1. Identify the equilateral pentagon:



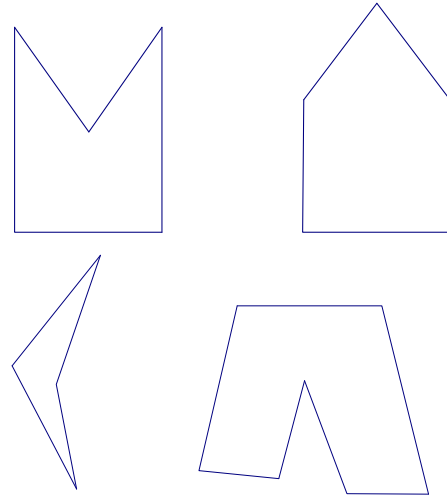
2. Which statement is true?

- A. All rhombuses are squares.
- B. All rectangles are squares.
- C. All squares are rhombuses.
- D. All squares are trapezoids.
- E. All parallelograms are rectangles.

3. Joe has 64 rulers (1 ft each). How many regular polygonal figures can be made using all rulers? Justify each of your answers.

4. Draw 3 figures. Each figure must break a different part of the definition of a polygon. Tell why each figure is not a polygon.

5. Classify each as convex or concave:



Classify each quadrilateral. (6-10)

6. Joe's 4-sided figure had all equal sides and 2 opposite 60° angles.

7. Margarita's 4-sided figure has 3 short sides and 1 long side.

8. Francisco's 4-sided figure has 4 right angles, and sides of 4", 5", 4", 5".

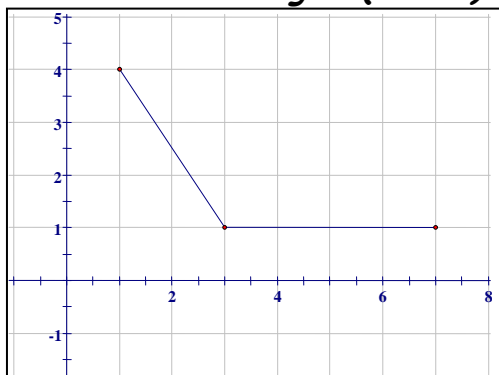
9. Helena's 4-sided figure has 2 long sides and 2 short sides and 2 obtuse angles.

10. Sue's 4-sided figure has 5ft sides and 90° corners.

Polygons

~ 2 ~

Start with this angle. (11-13)



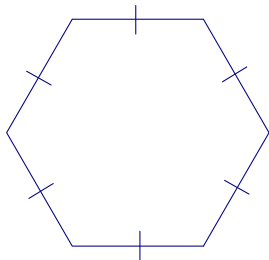
List the point that would create each of the following figures:

11. Parallelogram

12. Isosceles Trapezoid

13. Kite

14. Classify this figure:



- A. Concave regular hexagon
- B. Convex regular hexagon
- C. Concave hexagon
- D. Convex octagon
- E. Concave regular octagon

15. Can a trapezoid be concave? Explain why or why not.

Janelle describes triangles over the phone. She wants you to name them for her. She is running low on minutes, she can only describe them in a few words. (16-21)

16. A triangle with 2 equal sides.

17. A triangle with all sides 4 inches long.

18. A triangle with sides 3", 4", 5" long.

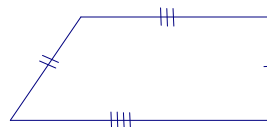
19. A triangle with a 100° angle.

20. A triangle with a 90° angle.

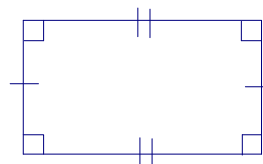
21. A triangle with angles 40° , 80° , and 60° .

Classify these quadrilaterals:

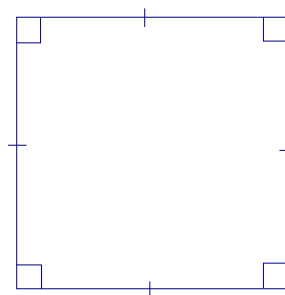
22.



23.



24.



Polygons

~ 3 ~

Classify the following triangles, each with two terms from the list below. (25-27)

Equilateral

Isosceles

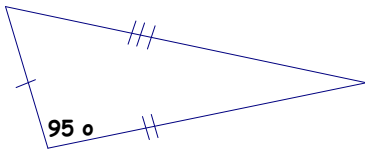
Scalene

Acute

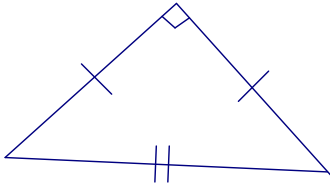
Obtuse

Right

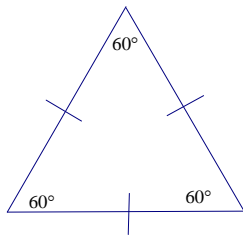
25.



26.



27.



28. Can an obtuse triangle have all obtuse angles? Why or why not?

29. Molly has 3, 10 ft stretches of fence (which cannot be cut). Describe the shape she can create, to hold her pigs in a pen, made with the fence. Use the most accurate terminology possible.

30. Which type of polygons would have the greatest area: concave or convex? Why?