

Homework

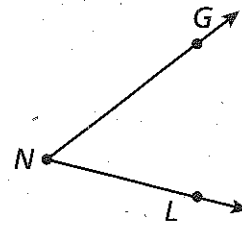
Draw each geometric figure.

1. a point

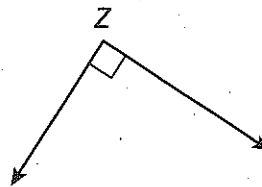
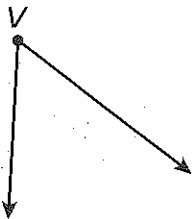
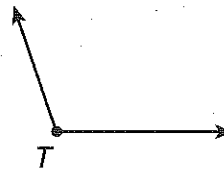
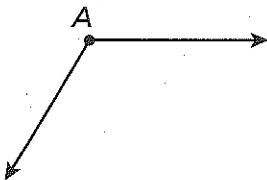
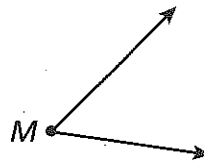
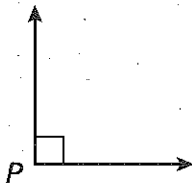
2. a ray

3. an angle

4. Name the angle shown. _____



Look at the angles below.



5. Which angles are right angles? _____

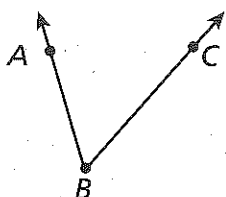
6. Which angles are acute angles? _____

7. Which angles are obtuse angles? _____

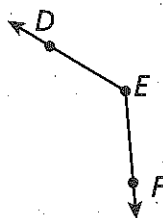
Homework

Use a protractor to find the measure of each angle.

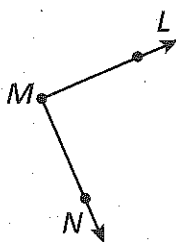
1.



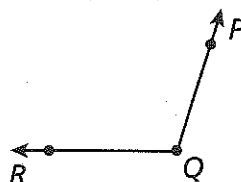
2.



3.



4.



Draw each angle.

5. an angle with measure 75° 6. an angle with measure 150°

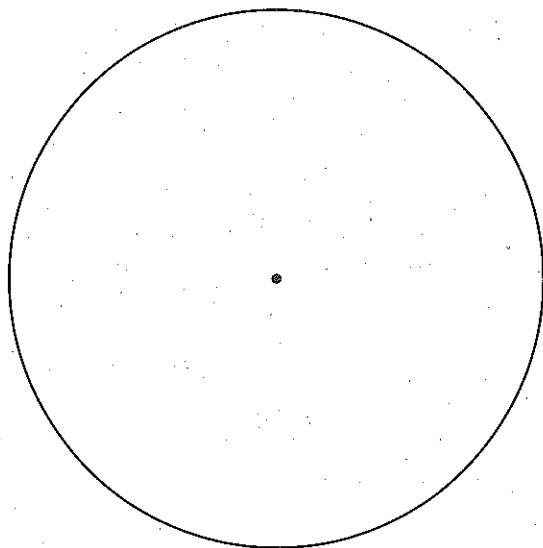
7. On a protractor there are two scales. Read one scale to find 44° . What is the measure on the other scale?

8. Which would be greater, the measure of a right angle or the measure of an obtuse angle?

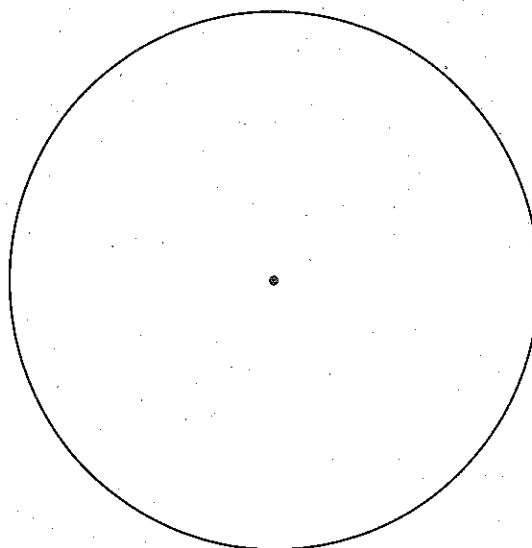
Homework

Use a straightedge and a protractor to draw and shade an angle of each type. Measure and label each angle.

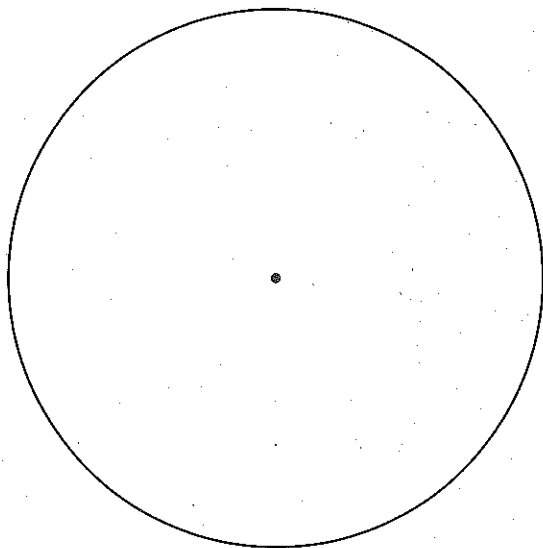
1. acute angle less than 40°



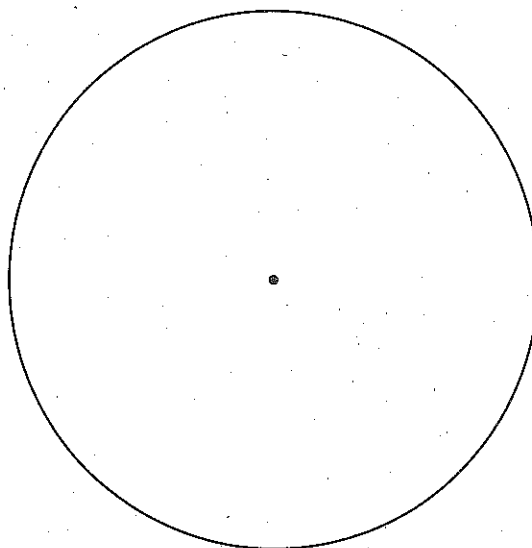
2. acute angle greater than 40°



3. obtuse angle less than 160°



4. four angles with a sum of 360°

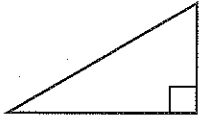


5. Write out the sum of your angle measures in Exercise 4 to show that the sum equals 360° .

Homework

Name each triangle by its angles and then by its sides.

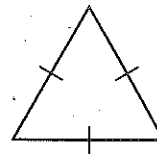
1.



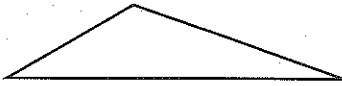
2.



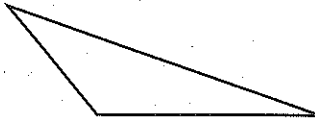
3.



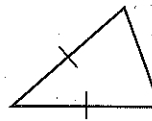
4.



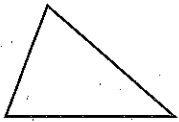
5.



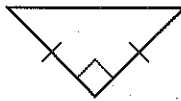
6.



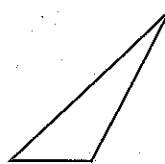
7.



8.



9.



10. Describe how acute, obtuse, and right triangles are different.

11. Describe how scalene, isosceles, and equilateral triangles are different.

Homework

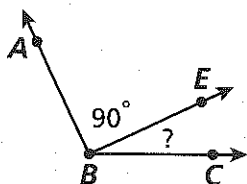
Use a protractor to draw the two described angles next to each other. What is the measure of the larger angle they form when they are put together?

1. The measures of the two angles are 20° and 55° .

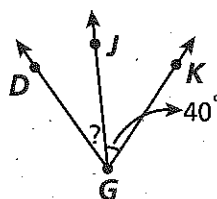
2. The measures of the two angles are 65° and 95° .

Write and solve an equation to find the unknown angle measure.

3.



4.



The measure of $\angle ABC$ is 115° .

What is the measure of $\angle EBC$?

The measure of $\angle DGK$ is 70° .

What is the measure of $\angle DGJ$?

5. When two 45° angles are put together, what kind of angle will they form?

Homework

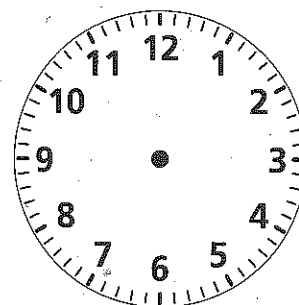
Write an equation to solve each problem.

1. Suppose you are bicycling along a straight road that suddenly starts sloping up a hill. You want to know what the angle measure of the slope is, but you can't measure inside the hill.

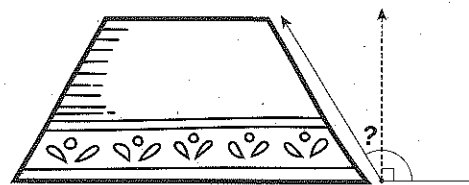


If you are able to measure the angle on top of the road, however, you can use an equation to find the unknown measure. What is the angle of the slope of the hill shown?

2. On the clock face shown at the right, draw clock hands to show the times 3:00 and 5:00. One clock hand for each time will overlap with a clock hand from the other time. What is the difference between the measures of the angles formed by the hands of the clocks for the two times? (Hint: There are 30° between each pair of numbers on a clock.)
- _____

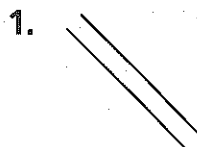


3. A lampshade is often sloped, with the top narrower than the bottom. For the lampshade shown, the whole angle shown is 122° . Find the measure of the unknown angle to find by how much the lampshade is sloped from upright.
- _____



Homework

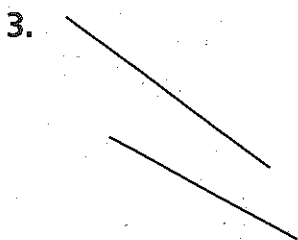
Which of the line segments below look parallel? Which look perpendicular? Which look neither parallel nor perpendicular? Explain your thinking.



Parallel: _____ Perpendicular: _____

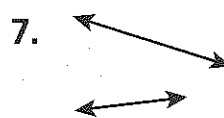
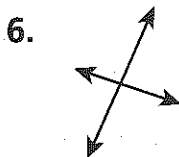
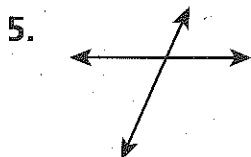
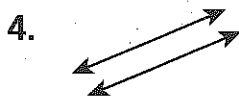


Parallel: _____ Perpendicular: _____



Parallel: _____ Perpendicular: _____

Tell whether each pair of lines is parallel, perpendicular, or neither.



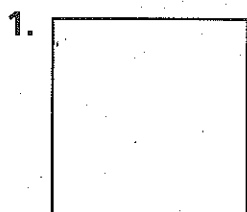
8. First draw a line segment 5 cm long. Then draw a line segment 7 cm long parallel to your first line segment.

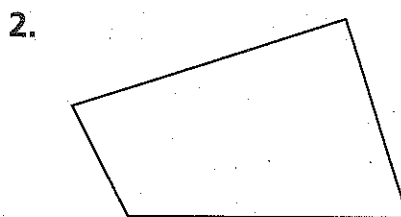
Homework

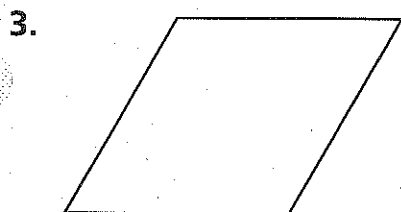
VOCABULARY
 quadrilateral
 square
 trapezoid
 rhombus
 rectangle
 parallelogram

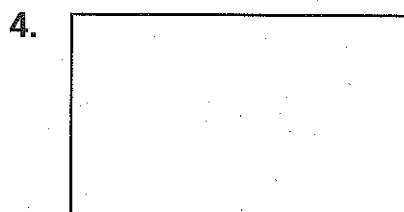
Using the Vocabulary box at the right, write the name of the quadrilateral that best describes each figure.

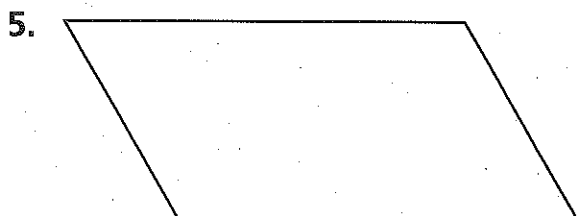
Use each word once. Describe how it is different from other quadrilaterals.

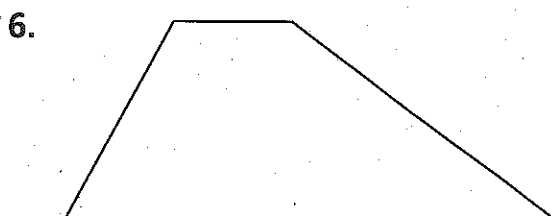






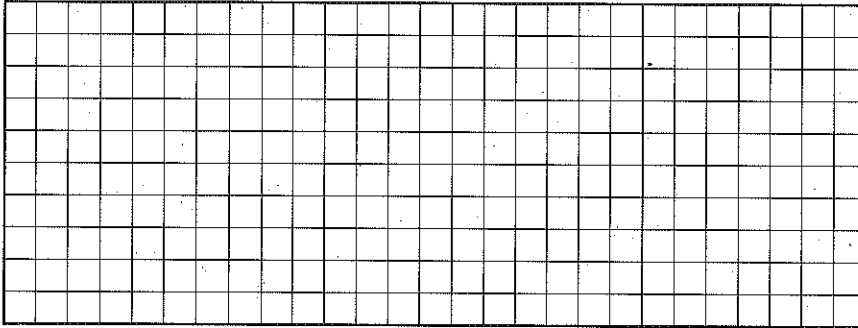




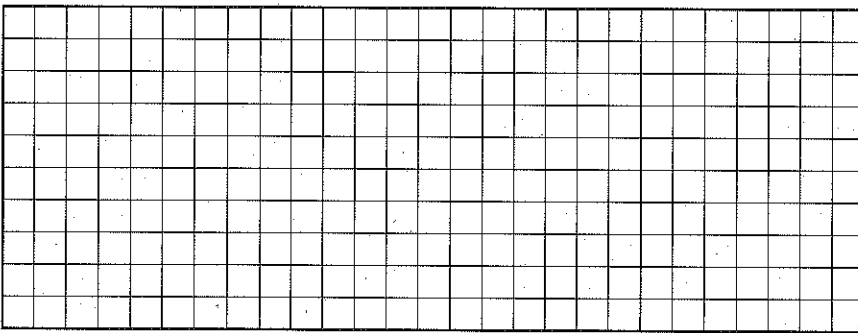


Homework

1. Draw a rectangle and a parallelogram. Draw one diagonal on each figure. Name the kinds of triangles you made.



2. Draw your figures again. Draw the other diagonal and name the kinds of triangles you made this time.

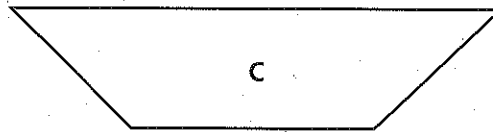
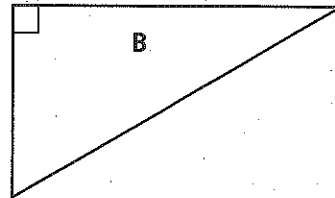
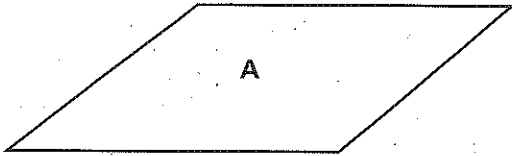


3. Use geometry words to describe how diagonals of quadrilaterals make triangles.

4. Use geometry words to describe a way to separate triangles into other triangles.

Homework

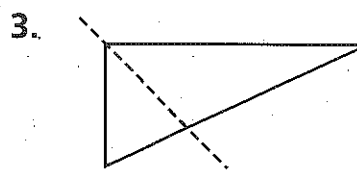
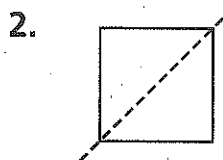
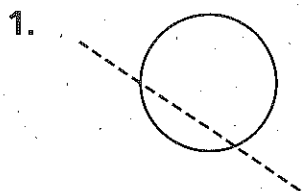
1. What are some different ways you could sort these three figures? Which figures would be in the group for each sorting rule?



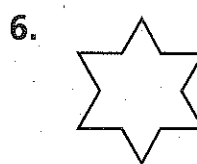
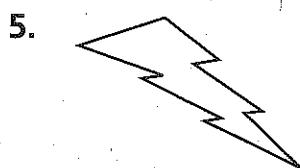
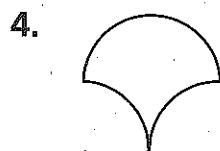
2. Draw a fourth figure to add to the figures in Exercise 1. Does it match any of the sorting rules you listed for Exercise 1?

Homework

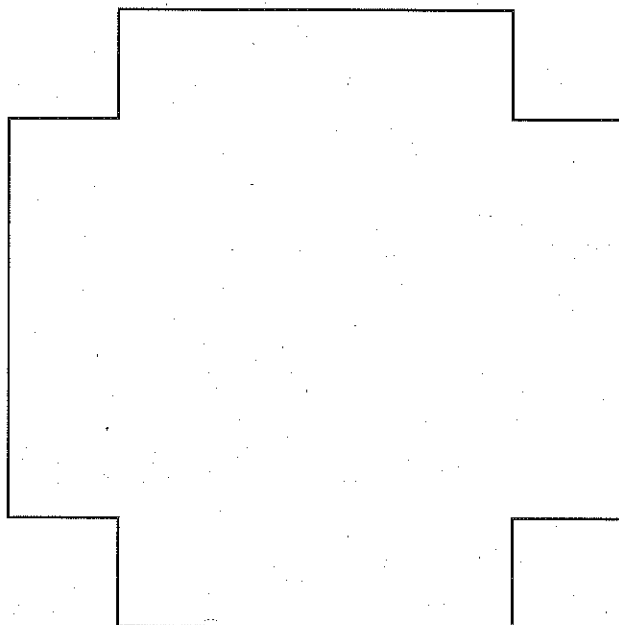
Tell whether the dotted line is a line of symmetry.



How many lines of symmetry does each figure have?



7. Draw any lines of symmetry for this figure.



Homework

Draw a flag design. The design must include a quadrilateral with 2 lines of symmetry. The flag must also have a triangle with a 45° angle.

1. What type of quadrilateral did you draw? How did you make sure that the quadrilateral has 2 lines of symmetry?

2. What type of triangle did you draw in the flag design? What tool did you use to make sure that the angle you drew measures 45° ?
