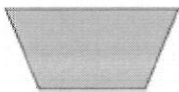Student: _____

Class: _____

Date: _____

1. Kelly bought some coasters. The shape of each coaster has more than four sides. Which could be the shape of the coasters?

   A. Circle

   B. Pentagon

   C. Trapezoid

   D. Triangle

2. Pedro is going to fix an old clock he bought at a garage sale. The hands of the clock are stuck at the time shown below.
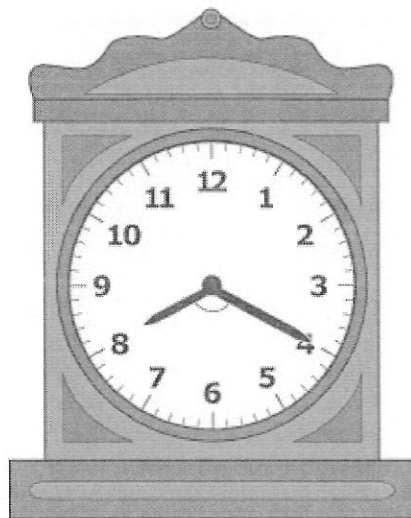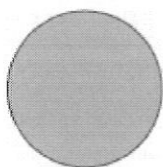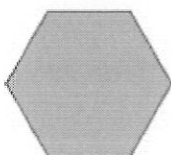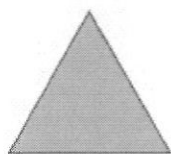

Which best describes the type of angle formed by the hands of the clock?

   A. Straight

   B. Obtuse

   C. Acute

   D. Right

3. **Louis has a floor rug that is shaped like an equilateral triangle. Which of the following is a true statement about an equilateral triangle?**

   A. It has 4 sides.

   B. It has 1 right angle.

   C. All of the angles are acute.

   D. All of the sides are of different lengths.
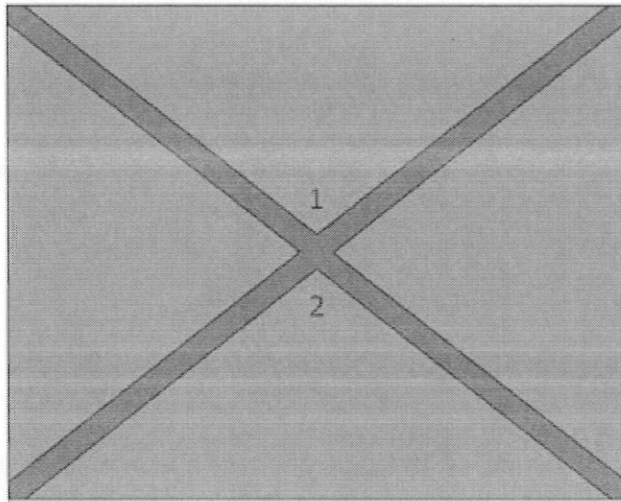
4. Which figure appears to contain more than one obtuse angle?

A.

B.

C.

D.

5. Which of these is not a polygon?

A.

B.

C.

D.

6. **The figure below shows the arrangement of two wooden planks on a gate.**

**Which of the following is *not* true about** $\angle 1$ **and** $\angle 2$?

A. They are vertical angles.

B. They share the same vertex.

C. They are complementary.

D. They are congruent.

7. Tina made a mask in a shape that has 9 equal sides. What is the shape of the mask?

A. Regular nonagon

B. Irregular nonagon

C. Regular heptagon

D. Irregular heptagon

8. Use your protractor to help you with this question.

Which angle measures closest to 122°?

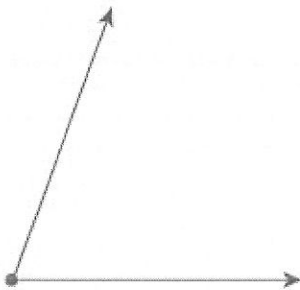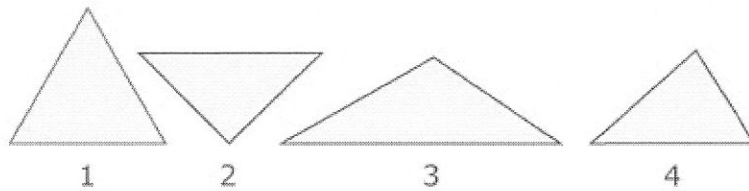A.

B.
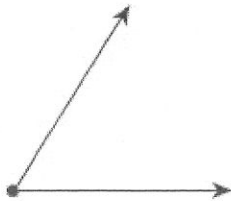
C.
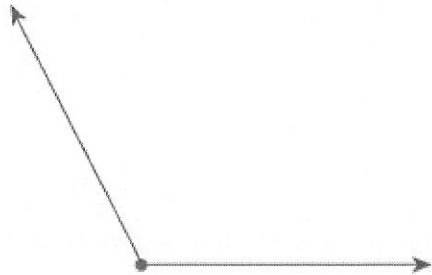
D.

9. Use a protractor to answer this question.

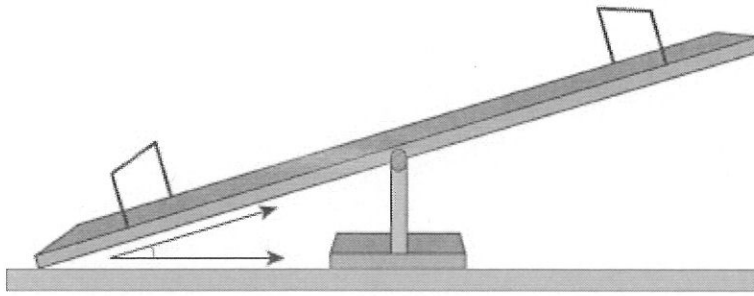   Eric cut the triangles shown from a piece of paper for his craft project.

   1   2   3   4

   Which of these triangles has an obtuse angle?
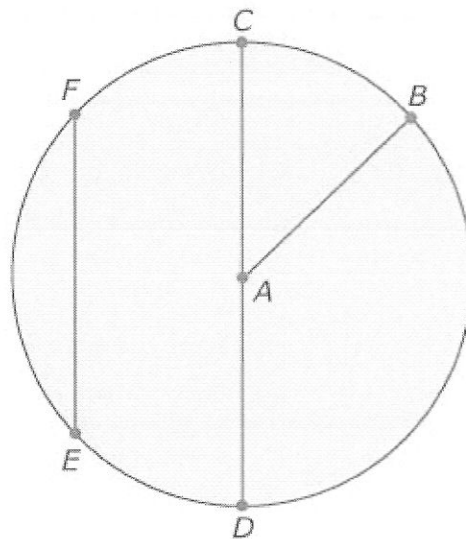
   A.   1

   B.   2

   C.   3

   D.   4

10. **The angle created by a seesaw and the ground measures less than 90° as shown in the picture below.**

Which of the following best names an angle that measures less than 90°?

A   Acute angle

B.   Right angle
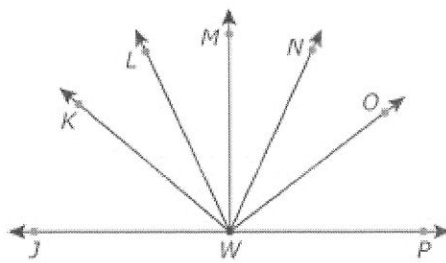
C.   Obtuse angle

D.   Straight angle

11. Point *A* is the center point of the circle shown below. Points *B, C, D, E,* and *F* lie on the circle.

Which geometric term below describes $\overline{CA}$?

A   Diameter

B.   Chord

C.   Radius

D.   Tangent

12. Audrey drew the figure shown below.
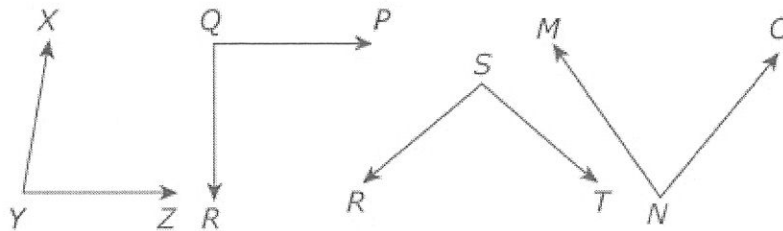
Which of these appears to be an obtuse angle?

A. ∠KWL

B. ∠MWO

C. ∠JWN

D. ∠LWM

13. Use a protractor to answer this question.

Karen drew the following angles.

Which of Karen's angles is an obtuse angle?

A. ∠XYZ

B. ∠PQR

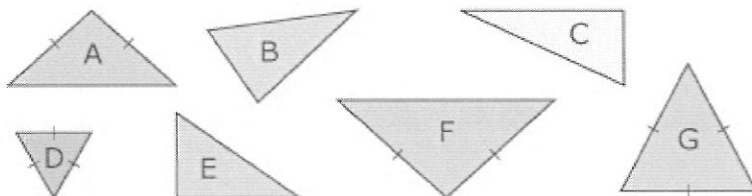C. ∠RST

D. ∠MNO

14. Jason drew five figures on this grid.
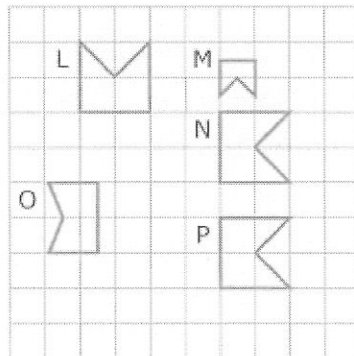
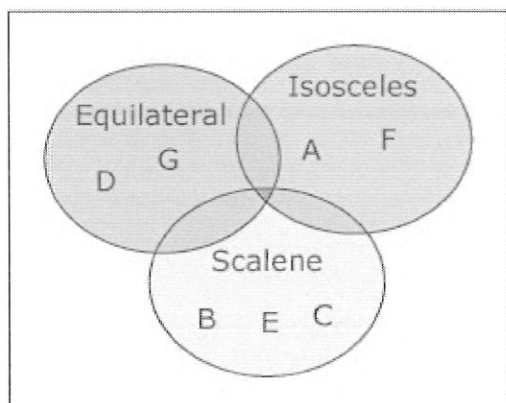Which of the following can be reflected to show that they are congruent?

A. Figures L and M

B. Figures L and O

C. Figures M and O

D. Figures N and P

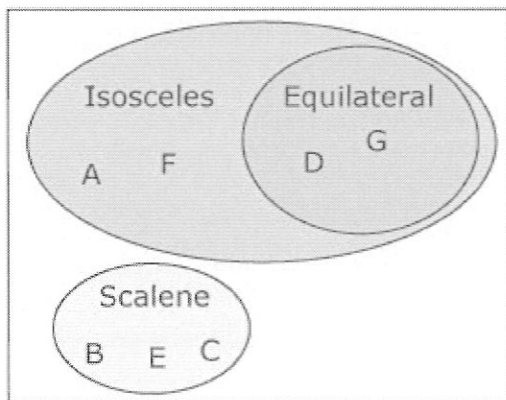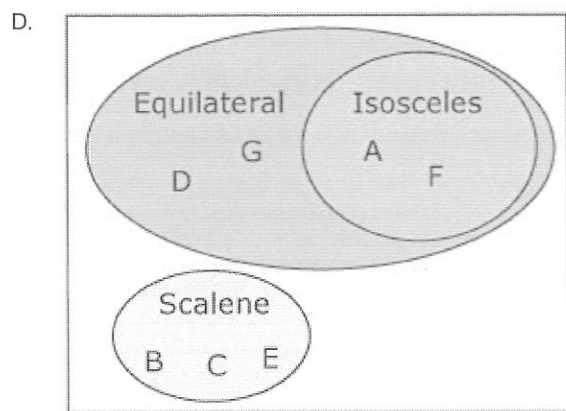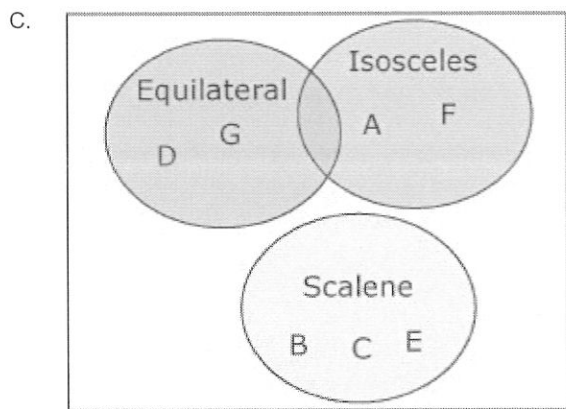15. Mrs. Appleton is classifying these triangles by the lengths of their sides.

Which Venn diagram correctly classifies the triangles?

A.

B.

C.

Isosceles
Equilateral
G
A   F
D

Scalene
B   C   E

D.

Equilateral   Isosceles
G
A
D   F

Scalene
B   C   E

16. **Vernon, Willis, Zach, and Roger each drew two shapes as shown below.**

Vernon   Willis   Zach   Roger

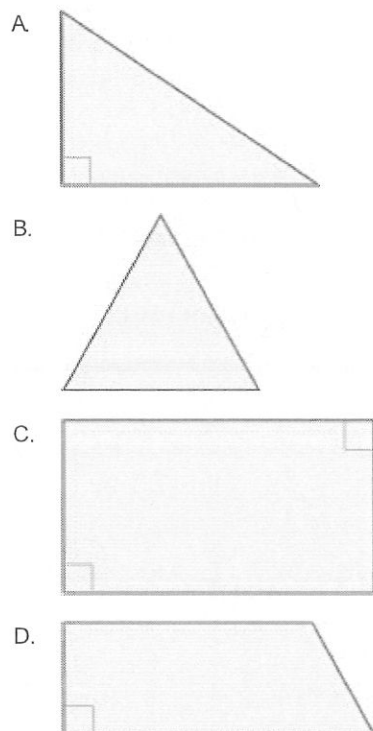**Which of the children drew two congruent shapes?**

A.   Only Vernon

B.   Only Willis

C.   Both Willis and Roger

D.   Both Vernon and Zach

17. Which is closest to the measure of $\angle ABC$?
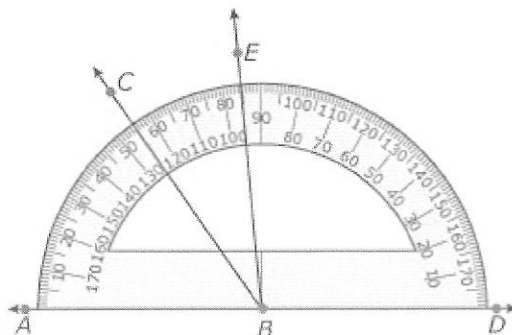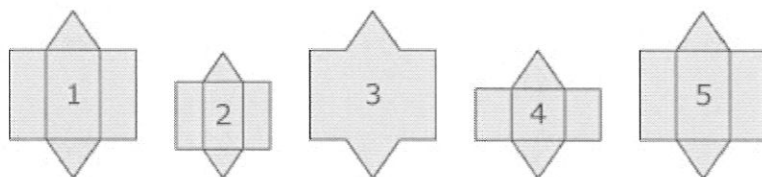
A. 50°

B. 55°

C. 70°

D. 125°

18. Which figure appears to contain only one obtuse angle?

A.

B.

C.

D.

19. Ken drew some shapes as shown.

1 2 3 4 5

Which shape appears to be congruent to shape 1?

A. 2

B. 3

C. 4

D. 5

20. Figure 1 shows isosceles triangles Q and R before they are joined together as in Figure 2. The bases of triangles Q and R are touching in Figure 2.
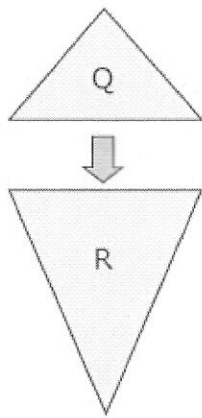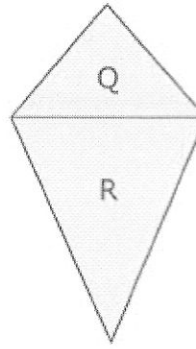
Q

R

Figure 1

Q

R
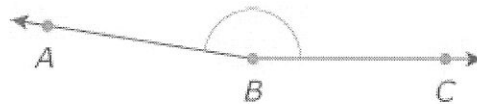
Figure 2

Which of the following describes the shape formed by the two triangles shown in Figure 2?

A. Kite

B. Triangle

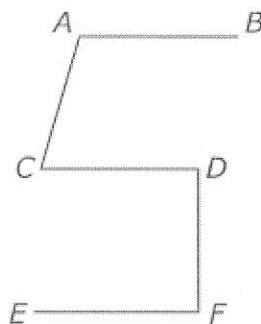C. Rhombus

D. Rectangle

21. Which appears to be the measure of $\angle B$?

A

B   C

A. 45°

B. 90°

C. 120°

D. 170°

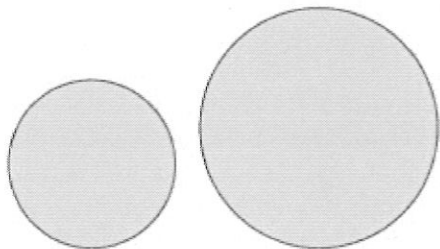22. Look at the diagram below.

A _____ B

C _____ D

E _____ F

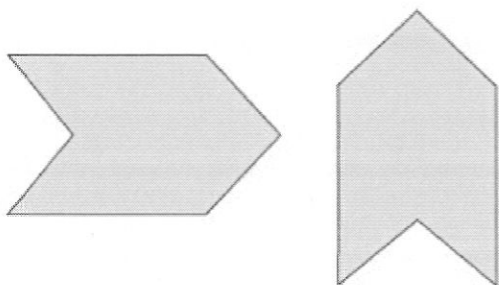Which of the following classifies angle A?

A. Obtuse

B. Right

C. Acute

D. Straight

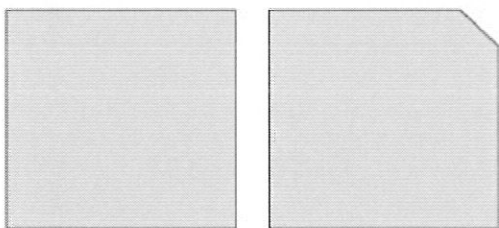23. **Which two figures appear to be congruent?**

A.

B.

C.

D.
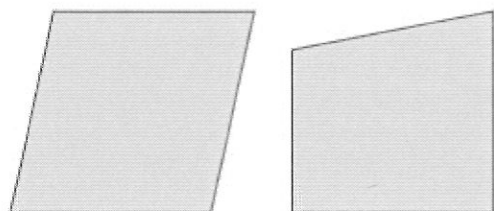
24. Denise drew the shapes shown.
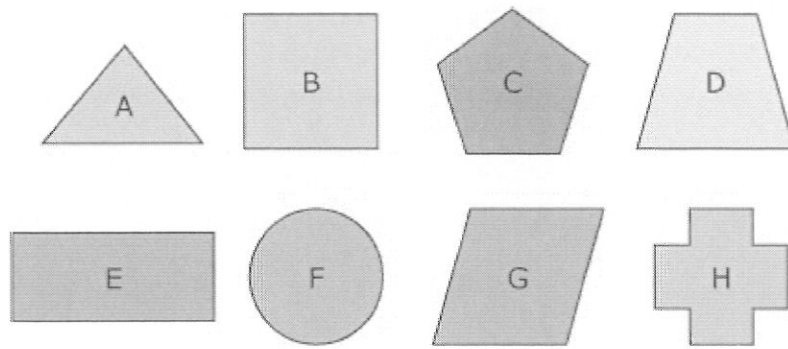
Using the letters inside each shape, identify which shapes are parallelograms. Explain how you know the shapes you chose are all parallelograms.

25. A playground appeared to have the shape shown below as seen by Tess from an airplane.
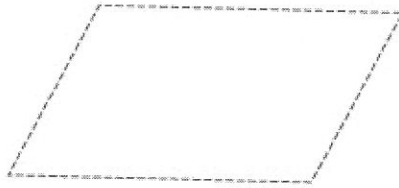
Which best describes the shape Tess saw?

A. Parallelogram

B. Rhombus

C. Square

D. Trapezoid

26. A figure is shown on the grid below.
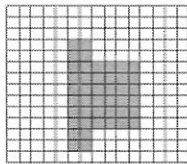
Which of these figures appears to be congruent to the figure above?

A.

B.

C.

D.
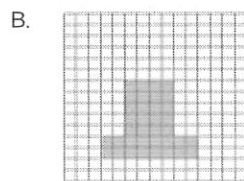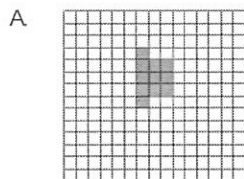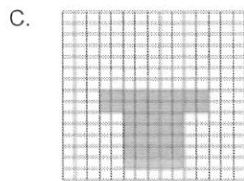
27. Which of the following triangles appears to have 3 acute angles?

A.

B.

C.

D.
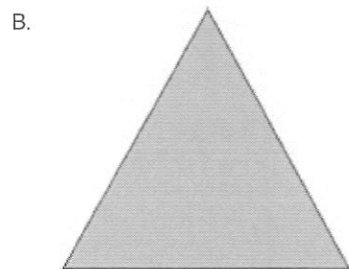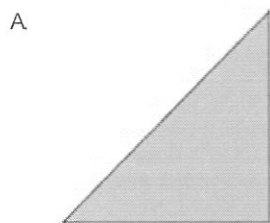
28. David is building a wood framework for the concrete foundation of a new house. The outline of the foundation is shown below.

32 ft | Foundation

16 ft

16 ft

50 ft
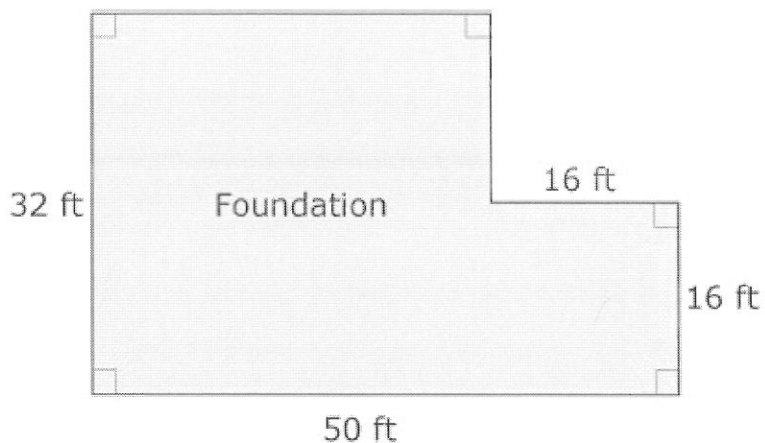
David wants to know the perimeter of the foundation so that he can determine how much wood he will need. What is the perimeter of the foundation?

A. 82 ft

B. 98 ft

C. 164 ft

D. 1344 ft

29. **Sarah drew the lines shown.**
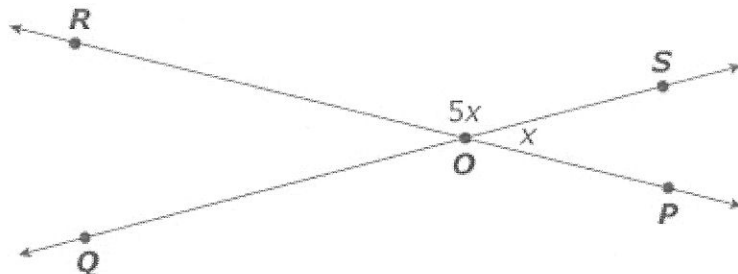
The measure of $\angle POR$ **= 180°. What is the measure of** $\angle ROS$ **?**

A. 30°

B. 75°

C. 150°
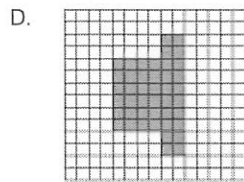
D. 180°

30. Rosie planted flowers in the two rectangular-shaped flower beds shown.

4 ft

8 ft

6 ft | Flower Bed A

3 ft | Flower Bed B

Which statement concerning the flower beds is true?

A. Flower bed A has the greater area.

B. Flower bed B has the greater area.

C. Flower bed A has the greater perimeter.

D. Flower bed B has the greater perimeter.

31. Which statement is true about the number of obtuse angles in an obtuse triangle?

A. There are 2 obtuse angles.

B. There is exactly 1 obtuse angle.

C. There can be either 1 or 2 obtuse angles.

D. It is possible for there to be 1, 2, or 3 obtuse angles.

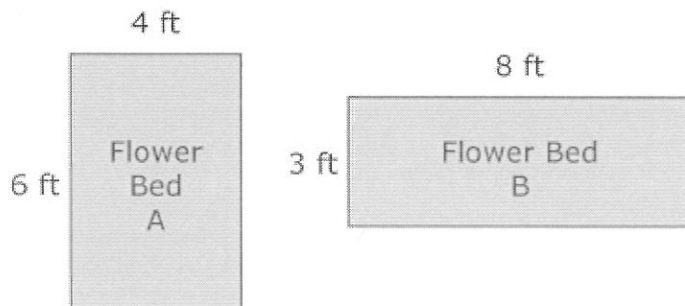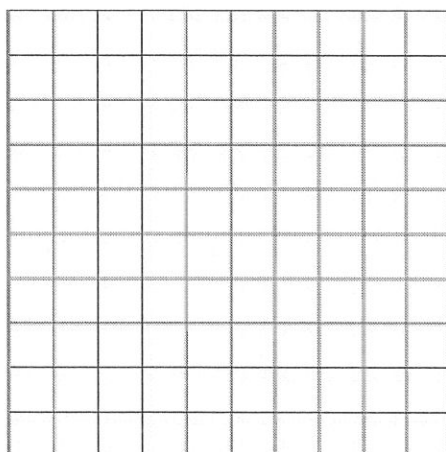32. The sides of each small square in the grid are 1 unit in length.

Bobby will draw a rectangle on this grid. He wants his rectangle to have a perimeter of 20 units and have the largest area possible. What is the largest area possible for his rectangle?

A. 100 square units

B. 25 square units

C. 24 square units

D. 21 square units

33. Colin created a shape by tracing three congruent triangles $\triangle ABC$, $\triangle GCE$, and $\triangle CIH$ on a piece of paper. Then he drew a line connecting points B, C, and I.
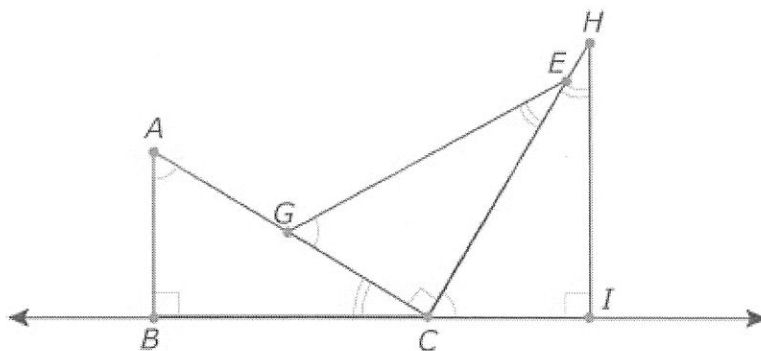
Which statement is true about the figure Colin created?

A. $\overline{AB}$ and $\overline{HI}$ are both parallel to $\overleftrightarrow{BI}$.

B. The area of the figure is twice the area of 1 of the triangles.

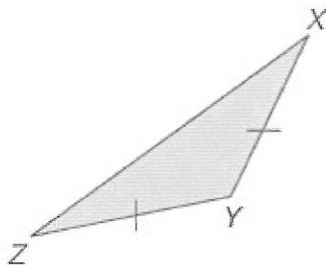C. The measures of $\angle ACB$, $\angle GCE$, and $\angle HCI$ total $180°$.

D. The perimeter of the figure is 3 times the length of the base of 1 of the triangles.

34. A rectangular garage door at a car repair shop is 5 meters tall and 7 meters wide. What is the area in square meters of the garage door?

A. 12

B. 24

C. 32

D. 35

35. Lucy drew an isosceles triangle as shown.

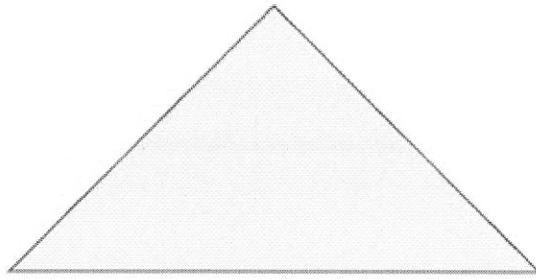
If the measure of ÐYZX is 25°, what is the measure of ÐXYZ in the triangle?

A. 50°

B. 75°

C. 130°

D. 310°
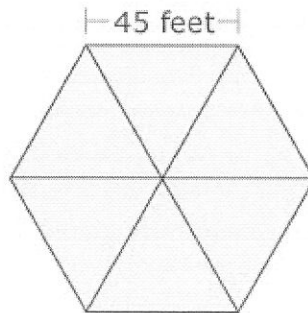
36. Use your protractor to help answer this question.

Jim drew the triangle below to represent a side view of the roof of a house.

Which of the following best names the type of triangle Jim drew?

A. Acute

B. Right

C. Obtuse

D. Equilateral

37. Ben wants to put a border around the garden as shown. The garden is in the shape of a regular hexagon.

What is the perimeter of the garden?

A. 810 feet

B. 270 feet

C. 225 feet

D. 135 feet

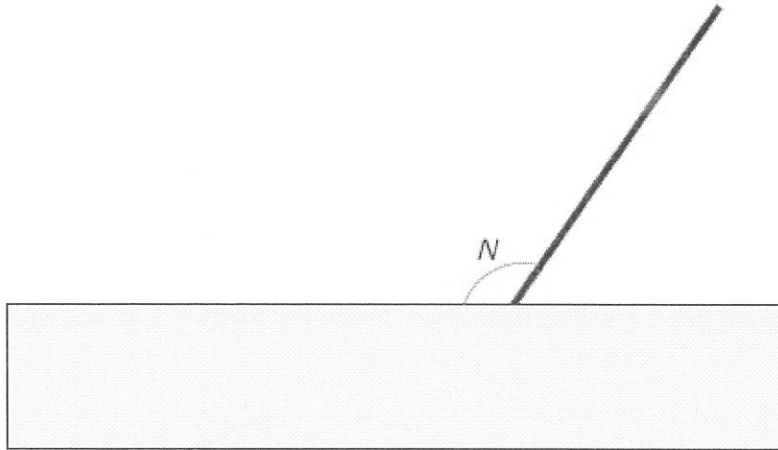38. Tony's garden is shaped like a rectangle with length and width as shown.

- $l = 25$ feet
- $w = 15$ feet

If Tony increases the width of his garden from 15 feet to 20 feet, how many feet greater will the perimeter of the garden be?

A. 5

B. 10

C. 40
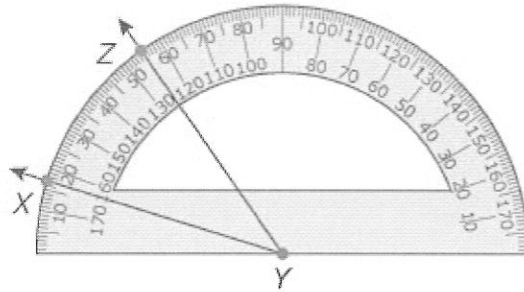
D. 45

39. Use your protractor to answer this question.

The top view of an open door is shown.

Which is closest to the measure of angle *N*?

A. 55°

B. 125°

C. 130°

D. 235°

40. Andre measured the angle shown below.

Which is closest to the measure of ∠XYZ?

A. 38°

B. 40°

C. 72°

D. 80°

41. Mr. Clemons is enlarging the rectangular-shaped playground at the elementary school.

Which change in the playground dimensions will double the area of the playground?

A. Doubling the length

B. Adding 2 feet to the length and to the width

C. Doubling the length and the width

D. Adding 2 feet to the width