

**Draw each figure.**

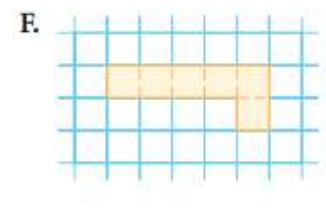
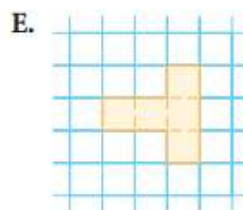
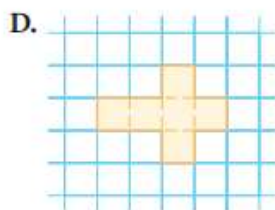
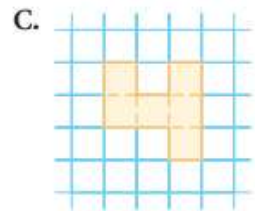
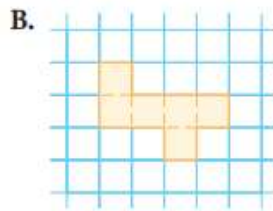
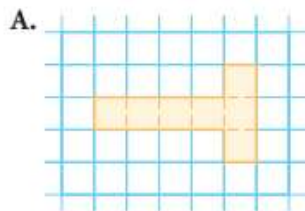
- 1) Cylinder
- 2) Cone
- 3) Prism with a hexagonal base
- 4) Sphere
- 5) Pyramid with a heptagonal base
- 6) Hemisphere
- 7) A rectangular solid 2 m by 3 m by 4 m, sitting on its biggest face.
- 8) A rectangular solid 3 inches by 4 inches by 5 inches, resting on its smallest face.
- 9) The photo shows a prism-shaped building with a pyramid roof and a cylindrical porch. Draw a cylindrical building with a cone roof and a prism-shaped porch.



A police station, or *koban*, in Tokyo, Japan

**Complete.**

10) Which net(s) will fold to make a cube?



Match the net with its geometric solid.

11)



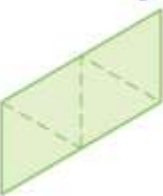
12)



13)



14)



A.



B.



C.

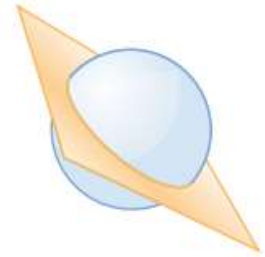


D.

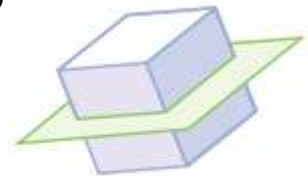


When a solid is cut by a plane, the resulting two-dimensional figure is called a section. Sketch the section formed when each solid is sliced by the plane as shown.

15).

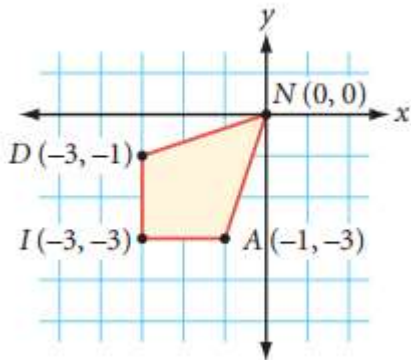


16)



Complete.

17) If the kite  $DIAN$  were rotated  $90^\circ$  clockwise about the origin, to what location would point  $A$  be relocated?

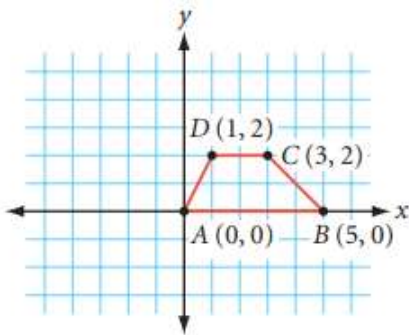


18) Midway through a 2000-meter race, a photo is taken of five runners. It shows Meg 20 meters behind Edith. Edith is 50 meters ahead of Wanda, who is 20 meters behind Olivia. Olivia is 40 meters behind Nadine. Who is ahead?

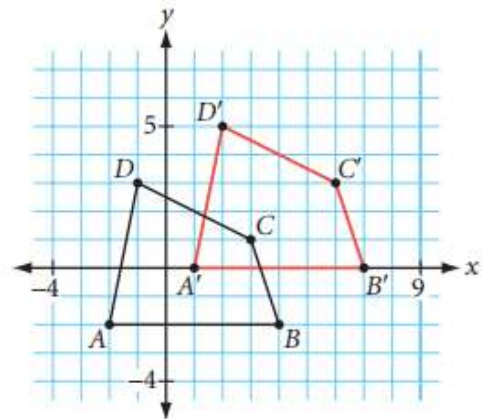
- 19) Beth Mack and her dog Trouble are exploring in the woods east of Birnam Woods Road, which runs north-south. They begin walking in a zigzag pattern: 1 km south, 1 km west, 1 km south, 2 km west, 1 km south, 3 km west, and so on. They walk at the rate of 4 km/h. If they started 15 km east of Birnam Woods Road at 3:00P.M., and the sun sets at 7:30P.M., will they reach Birnam Woods Road before sunset?



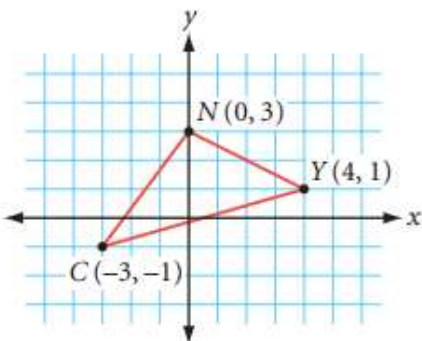
- 20) If trapezoid  $ABCD$  were rotated  $90^\circ$  counterclockwise about  $(0, 0)$ , to what  $(x, y)$  location would points  $A, B, C,$  and  $D$  be relocated?



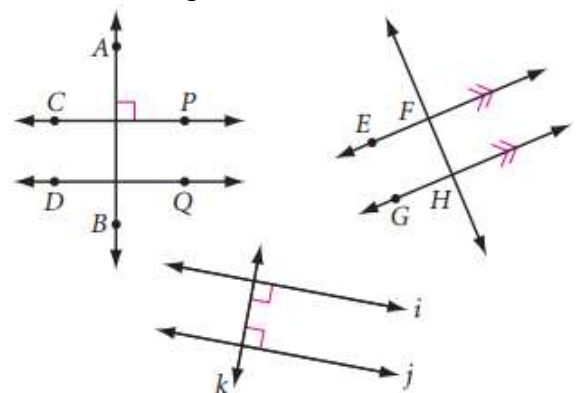
- 22) What was the ordered pair rule used to relocate the four vertices of  $ABCD$  to  $A'B'C'D'$ ?



- 21) If  $\triangle CYN$  were reflected across the  $y$ -axis, to what location would points  $C, Y,$  and  $N$  be relocated?

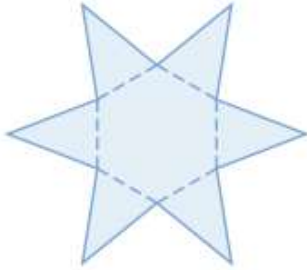


- 23) Which lines are perpendicular?  
Which lines are parallel?

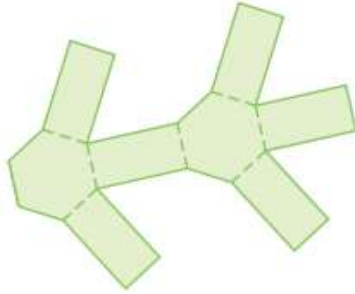


Sketch the three-dimensional figure formed by folding each net into a solid. Name the solid.

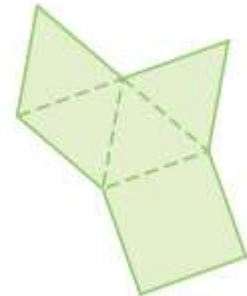
24)



25)

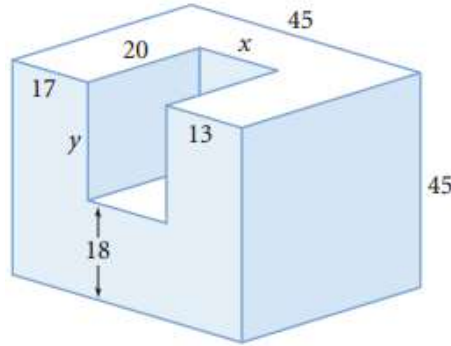


26)

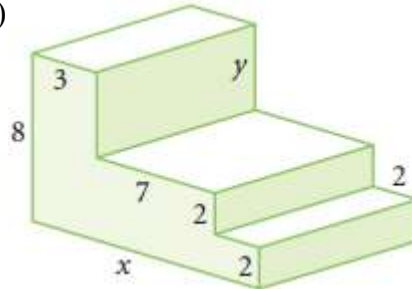


Find the lengths of  $x$  and  $y$ . (Every angle on each block is a right angle.)

27)

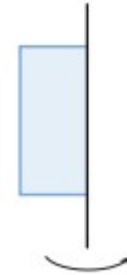


28)



Each figure represents a two-dimensional figure with a wire attached. The three-dimensional solid formed by spinning the figure on the wire between your fingers is called a solid of revolution. Sketch the solid of revolution formed by each two-dimensional figure.

29)



30)



Write the words or symbols that make each statement true.

31) The three undefined terms of geometry are \_\_\_\_\_, \_\_\_\_\_, and \_\_\_\_\_.

32) "Line  $AB$ " may be written using a symbol as \_\_\_\_\_.

33) "Arc  $AB$ " may be written using a symbol as \_\_\_\_\_.

34) The point where the two sides of an angle meet is the \_\_\_\_\_ of the angle.

35) "Ray  $AB$ " may be written using a symbol as \_\_\_\_\_.

36) "Line  $AB$  is parallel to segment  $CD$ " is written in symbolic form as \_\_\_\_\_.

37) The geometry tool you use to measure an angle is a \_\_\_\_\_.

38) "Angle  $ABC$ " is written in symbolic form as \_\_\_\_\_.

39) The sentence "Segment  $AB$  is perpendicular to line  $CD$ " is written in symbolic form as \_\_\_\_\_.