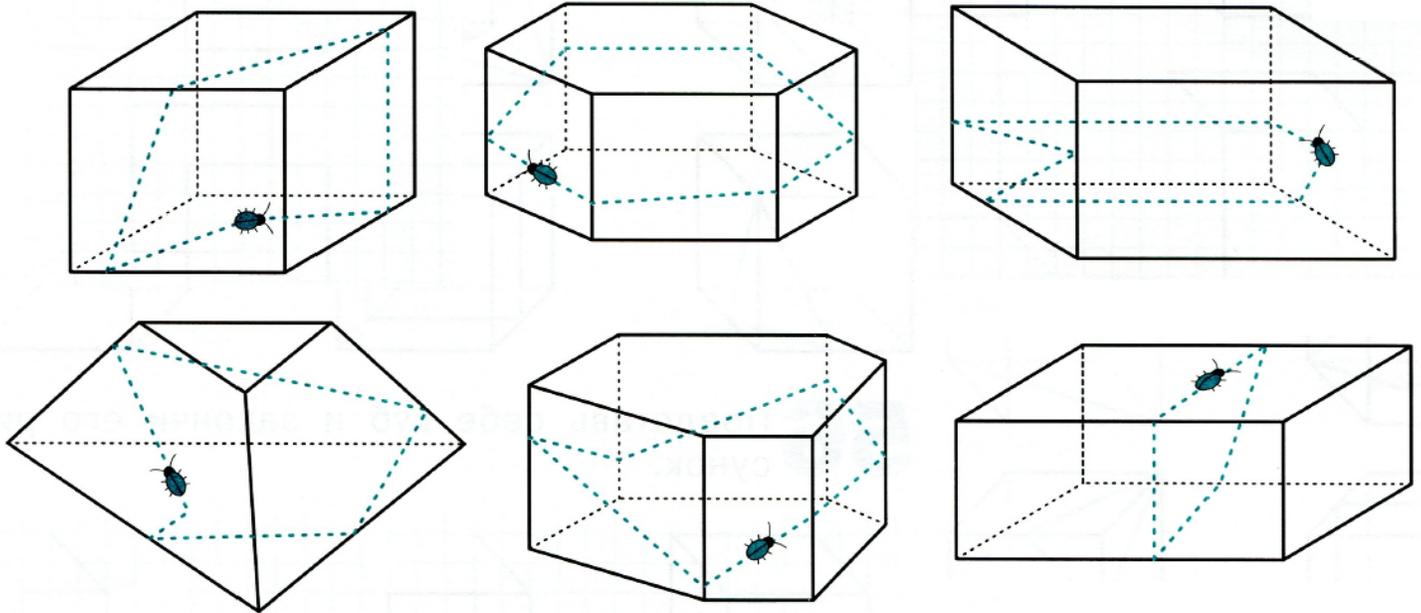


Homework 26

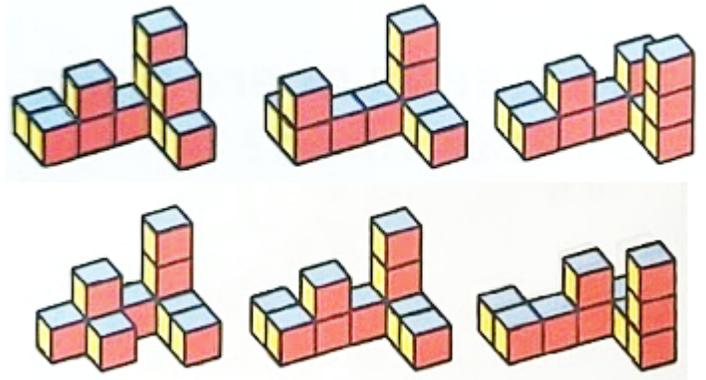
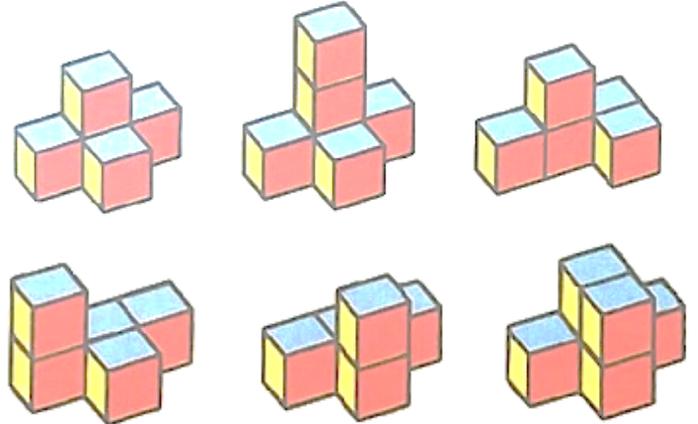
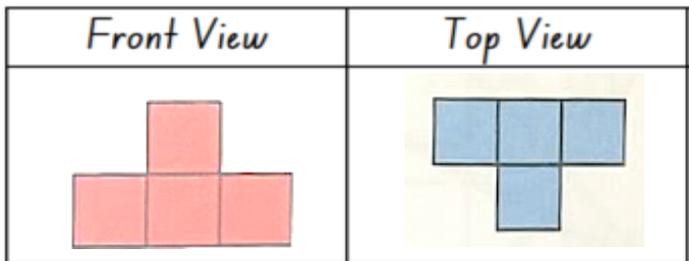
6.

Imagine that there is a bug crawling over the surface of a solid polyhedron. Trace with a solid red line the parts of the path you would be able to see. Trace with dashed lines the parts of the path that you would not be able to see.

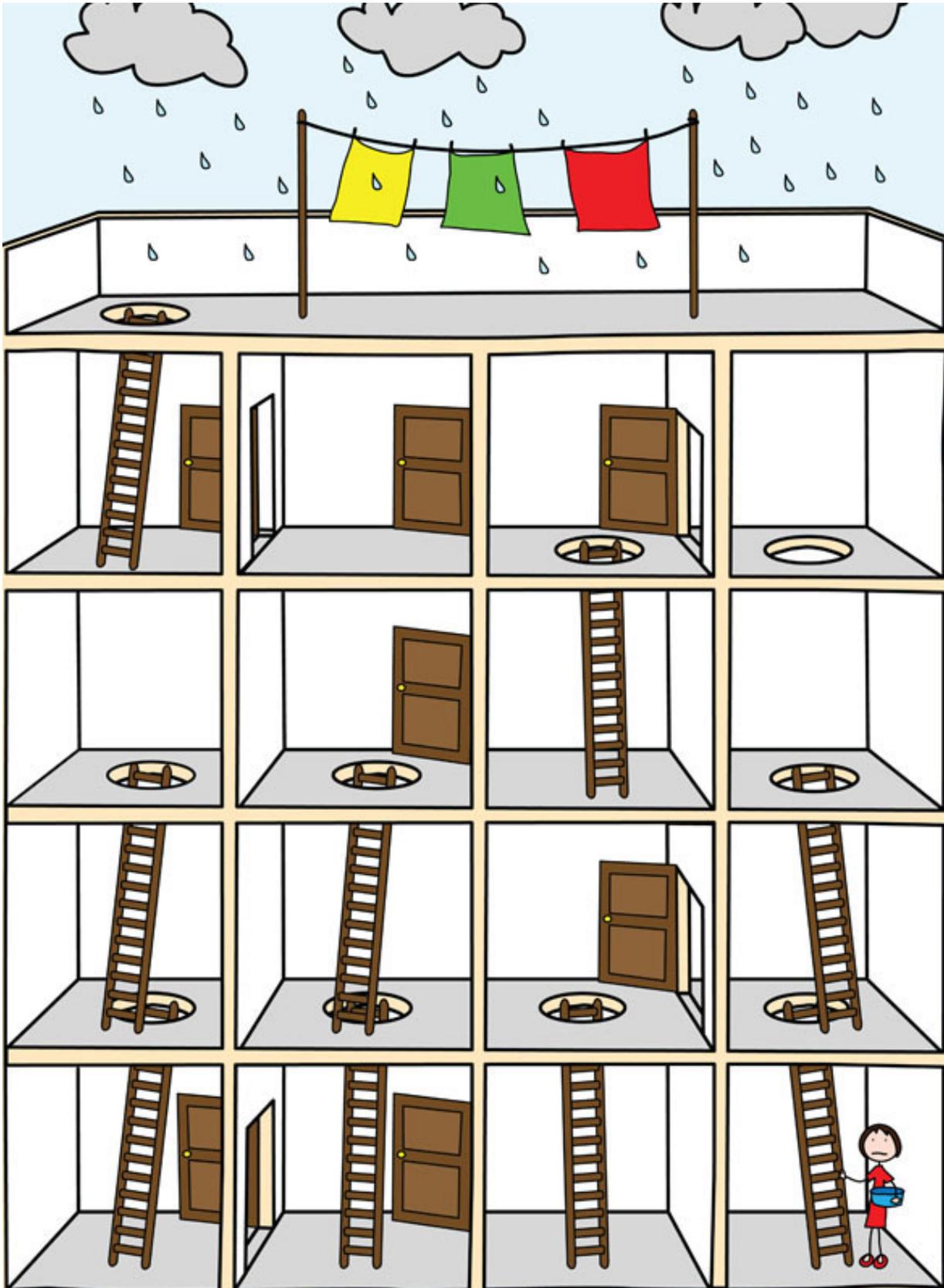


7.

The front and top views of a three-dimensional figure are shown. Identify the figure.



8. Betty is on the first floor right now. Help Betty to get to the roof and save her laundry from the rain.



Geometry review

Review of Lines, Rays and Segments

In geometry, **a line** is straight and goes on forever. To indicate that a line goes on forever, we usually draw lines with arrows on both ends, like this:



Lines are sometimes labeled by indicating two points on them and placing a double arrow over the names of the points (which are capital letters). For example, the line

that goes through points A and B might be labeled as \overleftrightarrow{AB} :



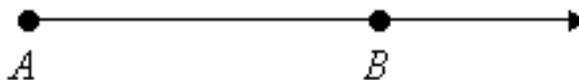
If we choose a point on a given line this divides the line into two pieces or "halves." Each half is called **a ray**. More precisely, a *ray* consists of a point on a line, called its *vertex*, and all points on one side (or half) of that line. A ray goes on forever, but only in one direction. We draw rays with an arrow on one side only, like this:

vertex



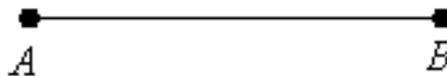
Rays are labeled by specifying the vertex and some other point on it, and placing an arrow over these letters.

Ray \overrightarrow{AB} would look like this:



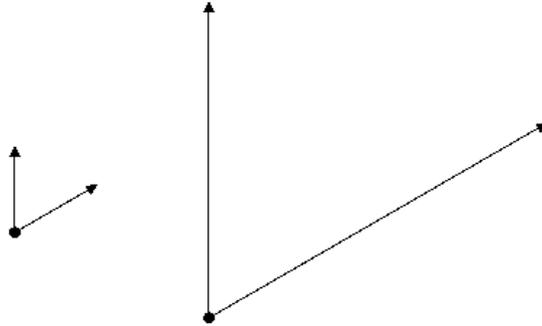
If we choose two distinct points on a line, the line is split into three pieces. The piece that consists of those two points and all the points between them is called a *segment*. Segments do not go on forever, so we do not put arrows on their ends. The endpoints of segments are called its *vertices*, and we label segments by specifying the endpoints and placing a line without arrows over these letters.

Segment \overline{AB} would look like this:

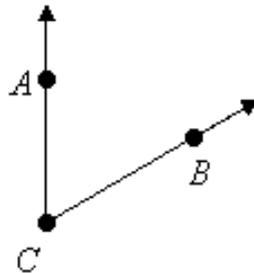


Review of Angles

Recall that an angle is made of two rays with a common vertex. The rays are the *sides* of the angle, and they go on forever. This means it doesn't matter how long you draw those rays, so the following two angles are really the same size even though they look different:



Angles are sometimes labeled using letters of three points on them, the vertex and one on each side of the angle. The vertex-letter is always the middle letter. There are two names we could give the following angle. It could be labeled $\angle ACB$ or $\angle BCA$:



Properties of Angles

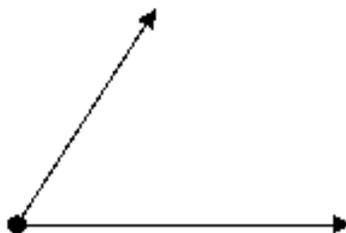
Definition: When the rays are the two halves of a line (they point in opposite directions), the angle is called a **straight angle**:



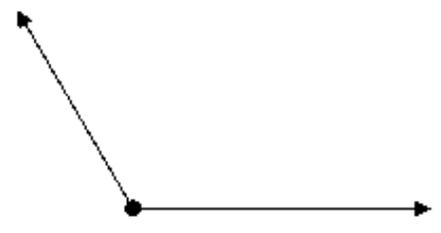
Definition: When the sides of an angle are perpendicular, the angle is called a **right angle**. For now, we are using right angle template to draw right angle.



Right angle



Acute angle



Obtuse angle