

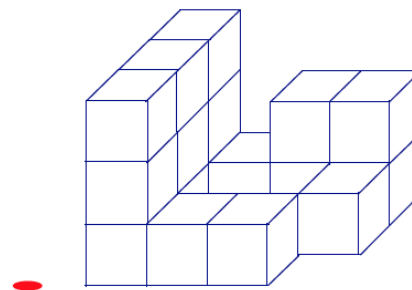
Lesson Summary

We can examine the horizontal whole-unit scales to look at three-dimensional figures. These slices allow a way to count the number of unit cubes in the figure, which is useful when the figure is layered in a way so that many cubes are hidden from view.

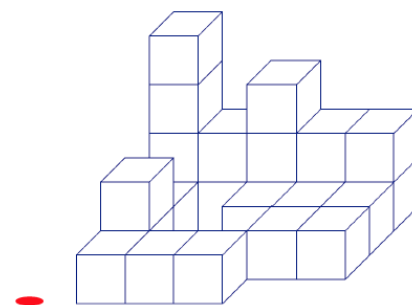
Problem Set

In the given three-dimensional figures, unit cubes are stacked exactly on top of each other on a tabletop. Each block is either visible or below a visible block.

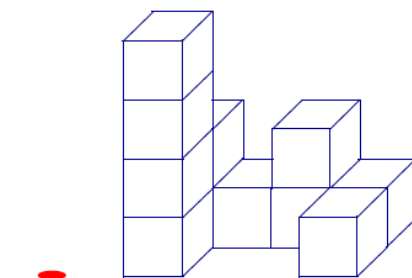
1.
 - a. The following three-dimensional figure is built on a tabletop. If slices parallel to the tabletop are taken of this figure, then what would each slice look like?
 - b. Given the level slices in the figure, how many cubes are in the figure?



2.
 - a. The following three-dimensional figure is built on a tabletop. If slices parallel to the tabletop are taken of this figure, then what would each slice look like?
 - b. Given the level slices in the figure, how many cubes are in the figure?



3.
 - a. The following three-dimensional figure is built on a tabletop. If slices parallel to the tabletop are taken of this figure, then what would each slice look like?
 - b. Given the level slices in the figure, how many cubes are in the figure?



4. John says that we should be including the Level 0 slice when mapping slices. Naya disagrees, saying it is correct to start counting cubes from the Level 1 slice. Who is right?
5. Draw a three-dimensional figure made from cubes so that each successive layer farther away from the tabletop has one less cube than the layer below it. Use a minimum of three layers. Then draw the slices, and explain the connection between the two.