

Visual Puzzles

1. Volumes 1 and 2 of a two-volume set of math books sit next to each other on a shelf. They sit in their proper order: Volume 1 on the left and Volume 2 on the right. Each front and back cover is $\frac{1}{8}$ inch thick, and the pages portion of each book is 1 inch thick. If a bookworm starts at the first page of Volume 1 and burrows all the way through to the last page of Volume 2, how far will she travel? Take a moment and try to solve the problem in your head.
2. Harold, Dina, and Linda are standing on a flat, dry field reading their treasure map. Harold is standing at one of the features marked on the map, a gnarled tree stump, and Dina is standing atop a large black boulder. The map shows that the treasure is buried 60 meters from the tree stump and 40 meters from the large black boulder. Harold and Dina are standing 80 meters apart. What is the locus of points where the treasure might be buried?
3. Freddie the Frog is at the bottom of a 30-foot well. Each day he jumps up 3 feet, but then, during the night, he slides back down 2 feet. How many days will it take Freddie to get to the top and out?

Lesson 1.9 • A Picture Is Worth a Thousand Words

Name _____ Period _____ Date _____

Read and reread each problem carefully, determining what information you are given and what it is that you trying to find.

1. A pair of parallel interstate gas and power lines run 10 meters apart and are equally distant from relay station A. The power company needs to locate a gas-monitoring point on one of the lines exactly 12 meters from relay station A. Draw a diagram showing the locus of possible locations.
2. The six members of the Senica High School math club are having a group photo taken for the yearbook. The photographer has asked the club to submit the height of each member so that he can quickly arrange them in order. The math club sent him the following information. Anica is 4 inches taller than Bruce. Charles is the same height as Ellen but an inch taller than Anica. Fred is midway between Bruce and Dora. Dora is 2 inches taller than Anica. Help out the photographer by arranging the club members in order from tallest to shortest.
3. Create a Venn diagram showing the relationships among triangles, acute triangles, isosceles triangles, and scalene triangles.

4. Sketch a possible net for each solid.

