5.8 Geometry: Combined

In this worksheet, we will practice finding the perimeters, areas, volumes, and even surface areas of figures that are combinations of "normal" figures. If you would like to review the basics, links to video descriptions can be found at the end of this worksheet. Starred problems have video solutions.

1 Find the perimeter and area of the combined figures. Round to the nearest whole number.
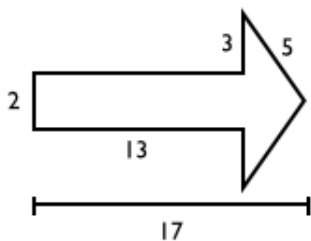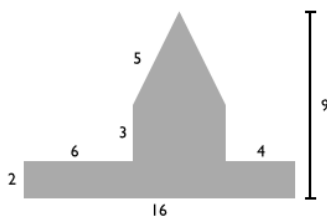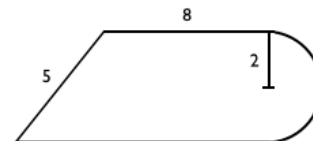
Figure 5.8.1

Figure 5.8.2

* Figure 5.8.3

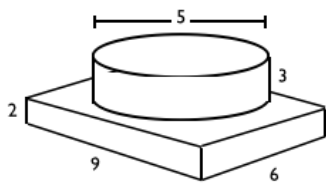**2** Find the volume of the 3D combined figures. Round to the nearest whole number.
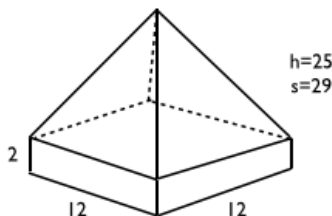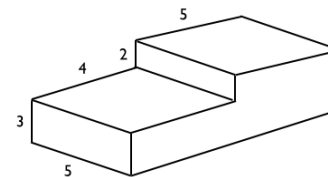
Figure 5.8.4

Figure 5.8.5

Figure 5.8.6

3 Challenge: Find the surface area of the 3D combined figures from problem 2. Round to the nearest whole number. (Hint: This is not as easy as adding the surface areas of the two 3D figures! They each have a side in common! Also, remember to include the bottom of the figure in the calculation of surface area, but don't count the parts of figures that touch twice. For example the top of the rectangle prism and the bottom of the cylinder only needs to be counted once.)

Additional Resources:

- Video solution for the 3rd figure in problem 1 on this worksheet: `http://youtu.be/_q-BWvg70Q4`