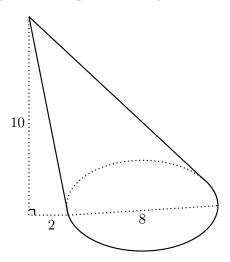


**Problem 1.** (10pt) Find the volume and surface area of the right circular cone shown below. [Note: Assume the line segment of length 8 below passes through the center of the circle.]



**Problem 2.** (10pt) Find the volume and surface area of the right circular cylinder with diameter 3 and height 10 shown below.

**Problem 3.** (10pt) Find the volume and surface area of the cube shown below. Also, find the length of the 'diagonal' of the cube, i.e. the length from one corner to another.

