Cylinders, Cones and Spheres

Listed below are the dimensions for various figures. Determine the volume of each figure and answer the questions. Make sure to show all your work.

1. A cylinder with dimensions: $r = 4\ in, h = 4\ in$

2. A cylinder with dimensions: $d = 4\ in, h = 9\ in$

3. A cylinder with dimensions: $r = 5\ in, h = 1\ in.$

4. A cone with dimensions: $r = 2\ in, h = 27\ in$

5. A cone with dimensions: $d = 4\ in, h = 48\ in$

6. A cone with dimensions: $r = 11\ in, slant\ height = 61\ in$

7. A sphere with dimensions: $d = 6\ in$

8. A sphere with dimensions: $d = 9\ in$

9. A sphere with dimensions: $r = 6\ in$

Use problem numbers when answering these questions.

10. Which figure has the largest volume?

11. Which figure has the smallest volume?

12. Which figures have equal volumes?

13. Which figures have volumes equal to 64π in^3?

14. Which figures have volumes between $100\pi\ in^3$ and $300\ \pi\ in^3$?