EXERCISES FOR WEEK 3

Find the <u>exact values</u> of the edge-length, total surface area, volume, radius of insphere, and dihedral angle of neighboring faces of the regular icosahedron (20 faces) which is inscribed inside the unit sphere.
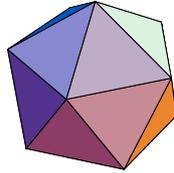
[Note]: You may look at the following page for an alternate method (answers using this approach will not be accepted):

`http://mathworld.wolfram.com/Icosahedron.html`

but pay attention that you need to scale the "R" (circumraidus) there to be 1 for our answers.

Some numerical values: $1.05146, 9.57454, 2.53615, 0.794653, 2.41186$