



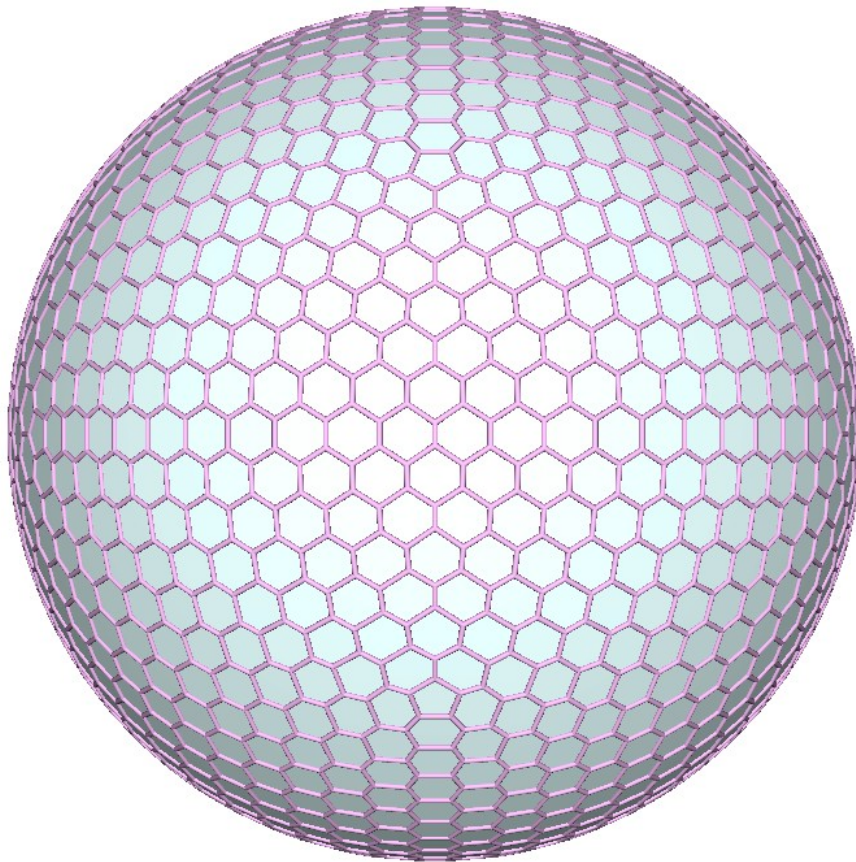
TECC: Thunderbird Early College Charter School

a 4D Puzzler

Hexapents for Everyone: Getting Started

In today's lesson, we need a source of hexapents, polyhedra made of pentagonal and hexagonal facets (as shown below).

One way to get these is to use Adrian Rossiter's AntiPrism, a free and open source project written in C++.



```
me@tecc:~$ geodesic -c2 14 | pol_recip -c C | off2pov > hexapent.pov
```

```
me@tecc:~$ povray -W1024 -H768 -A0.1 hexapent.pov
```

Be prepared to discuss: what is the dual, i.e. reciprocal of a polyhedron? We will be playing around with both the frequency and color attributes of our polyhedra. If you need help compiling and/or installing the AntiPrism utilities, or Povray, please seek help from a student peer.