pyramid.ms
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This is a Maple worksheet to display a pyramid.
The following command loads some plotting macros.

```
> with(plots):
```

We first define the coordinates of the five points.

```
> a:=[1,0,0];
  b:=[0,1,0];
  c:=[-1,0,0];
  d:=[0,-1,0];
  e:=[0,0,1];
```

$$a := [1, 0, 0]$$

$$b := [0, 1, 0]$$

$$c := [-1, 0, 0]$$

$$d := [0, -1, 0]$$

$$e := [0, 0, 1]$$

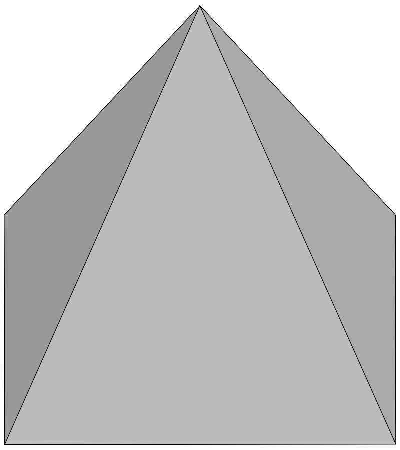
The pyramid is described as a list of four triangles, each with three points, and one square with four points.

```
> tetrahedron:=[[a,b,e],[b,c,e],[c,d,e],[d,a,e],[a,b,c,d]]
  ;
```

$$tetrahedron := [[[1, 0, 0], [0, 1, 0], [0, 0, 1]], [[0, 1, 0], [-1, 0, 0], [0, 0, 1]], [[-1, 0, 0], [0, -1, 0], [0, 0, 1]], [[0, -1, 0], [1, 0, 0], [0, 0, 1]], [[1, 0, 0], [0, 1, 0], [-1, 0, 0], [0, -1, 0]]]$$

The tetrahedron is ready to display.

```
> polygonplot3d(tetrahedron,style=patch);
```



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