

```

In[8]:= f1[p_] := {(2 - 3 Part[p, 1]) / (3 - 4 Part[p, 1]),
  Part[p, 2] / (3 - 4 Part[p, 1]), Part[p, 3] / (3 - 4 Part[p, 1])};
f2[p_] := {Part[p, 1] / (3 - 4 Part[p, 2]), (2 - 3 Part[p, 2]) / (3 - 4 Part[p, 2]),
  Part[p, 3] / (3 - 4 Part[p, 2])};
f3[p_] := {Part[p, 1] / (3 - 4 Part[p, 3]), Part[p, 2] / (3 - 4 Part[p, 3]),
  (2 - 3 Part[p, 3]) / (3 - 4 Part[p, 3])};
f4[p_] := {Part[p, 1] / (4 (Part[p, 1] + Part[p, 2] + Part[p, 3]) - 1),
  Part[p, 2] / (4 (Part[p, 1] + Part[p, 2] + Part[p, 3]) - 1),
  Part[p, 3] / (4 (Part[p, 1] + Part[p, 2] + Part[p, 3]) - 1)}

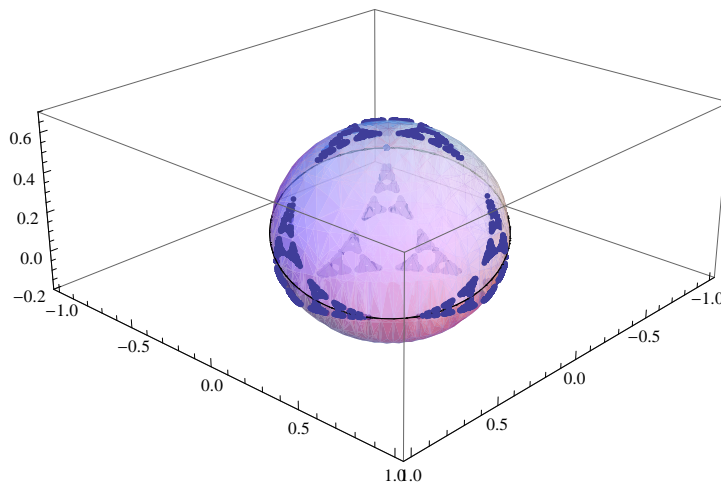
expand[t_] :=
  Flatten[Table[{f1[Part[t, i]], f2[Part[t, i]], f3[Part[t, i]], f4[Part[t, i]]},
    {i, 1, Length[t]}], 1]

createTable[0, t_] := t

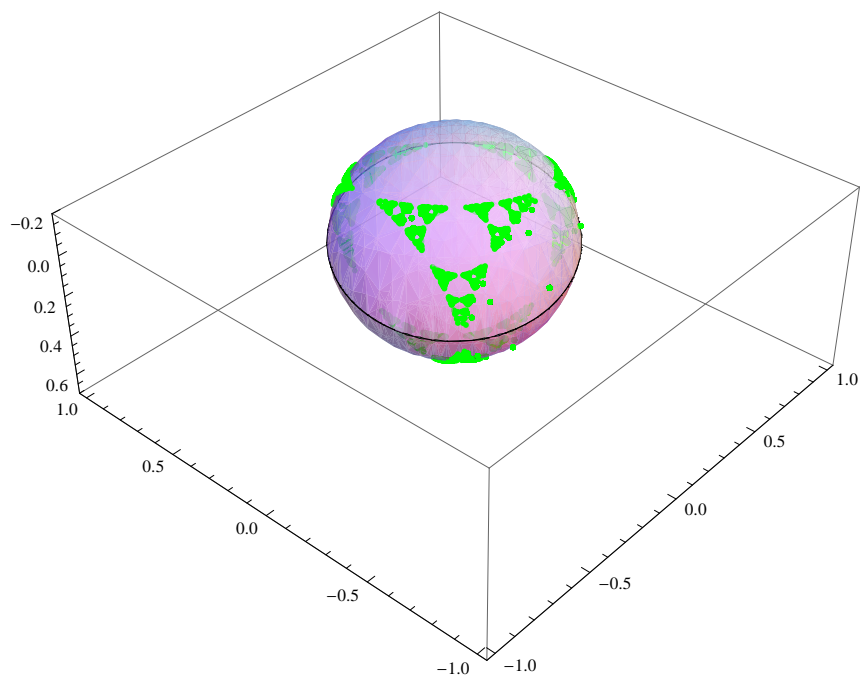
createTable[m_, t_] := createTable[m - 1, expand[t]]

Show[Plot3D[{1 / 2 (1 - x - y + (2 x + 2 y - 2 x * y - 3 x^2 - 3 y^2)^(1 / 2)),
  1 / 2 (1 - x - y - (2 x + 2 y - 2 x * y - 3 x^2 - 3 y^2)^(1 / 2))},
  {x, -1, 1}, {y, -1, 1}, Mesh -> None, PlotStyle -> Opacity[0.7]],
  ListPointPlot3D[createTable[7, {{0, 0, 1 / 2}}]]]

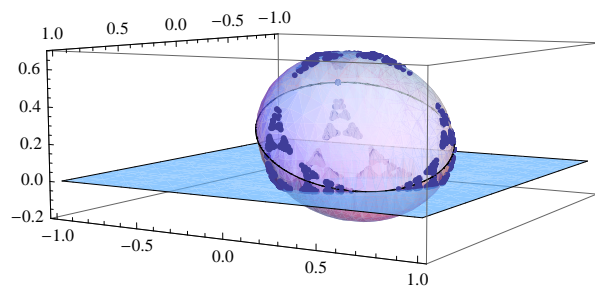
```



```
Show[Plot3D[{1/2 (1 - x - y + (2 x + 2 y - 2 x * y - 3 x^2 - 3 y^2)^(1/2)),
  1/2 (1 - x - y - (2 x + 2 y - 2 x * y - 3 x^2 - 3 y^2)^(1/2))},
{x, -1, 1}, {y, -1, 1}, Mesh -> None, PlotStyle -> Opacity[0.7]],
ListPointPlot3D[createTable[7, {{-1/6, 1/3, 1/3}}]]]
```



```
Show[Plot3D[{1/2 (1 - x - y + (2 x + 2 y - 2 x * y - 3 x^2 - 3 y^2)^(1/2)),
  1/2 (1 - x - y - (2 x + 2 y - 2 x * y - 3 x^2 - 3 y^2)^(1/2)), 0},
{x, -1, 1}, {y, -1, 1}, Mesh -> None, PlotStyle -> Opacity[0.7]],
ListPointPlot3D[createTable[6, {{0, 0, 1/2}}]]]
```



```
Show[Plot3D[{1/2 (1 - x - y + (2 x + 2 y - 2 x * y - 3 x^2 - 3 y^2)^(1/2)),
  1/2 (1 - x - y - (2 x + 2 y - 2 x * y - 3 x^2 - 3 y^2)^(1/2))},
  {x, -1, 1}, {y, -1, 1}, Mesh -> None, PlotStyle -> Opacity[0.7]],
ListPointPlot3D[createTable[6, {{0, 0, 1/2}}]],
ListPointPlot3D[createTable[6, {{-1/6, 1/3, 1/3}}], PlotStyle -> Green]]
```

