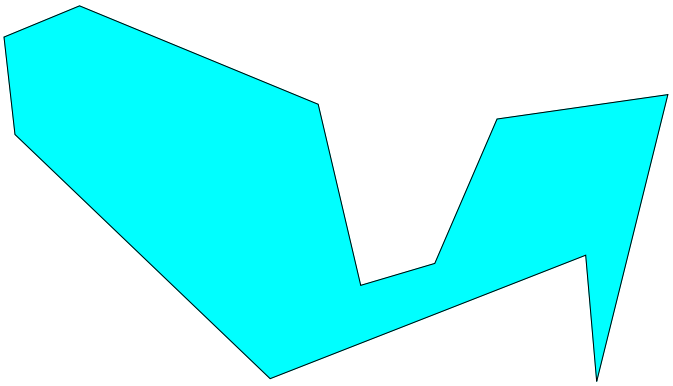
oglišča

In[ ]:=
```
OGLGGB = (# + {3, 5}) & /@ ToExpression[
    StringReplace["((-7.5,0.13),
  (-0.45831,-2.77501),
  (0.79673,-8.11906),
  (2.98293,-7.4713),
  (4.82,-3.21),
  (9.86,-2.49),
  (7.76018,-10.95302),
  (7.4363,-7.22838),
  (-1.87529,-10.87205),
  (-9.40554,-3.66569),
  (-9.72942,-0.79124))",

    {"(" → "{", ")" → "}"}]
   ];
Graphics[{
  RGBColor[0, 1, 1, 1],
  EdgeForm[Thin],

  Polygon[OGLGGB]
 }]
```

Out[ ]=



3D obračanje

In[ ]:=
```
l = 5;
velpušč = .015;
debelina = .04;
rm = RotationMatrix[1, {1, 2, 3}];
OGLGGB3D0 = Append[#, 0] & /@ OGLGGB;
OGLGGB3D = rm.Append[#, 0] & /@ OGLGGB;
n = l rm.{0, 0, 1};
velikostčrk = 205;
črna = .2;
prozorna = .3;
```

```
razmikoznak = .3;
barva1 = {0, 0, 1, .4};
barva2 = {0, 1, 1, 1};
barva3 = {0, 0, 0, .3};
rkot = 4;
stranickot = 100;
debelinastr = .001;


grafika = Show[


    (*polskvi*)
    Graphics3D[{
      RGBColor[barva1],
      EdgeForm[Thickness[debelinastr]],

      Polygon[OGLGGB3D]
     }],
    Graphics3D[{
      RGBColor[barva2],
      EdgeForm[Thickness[debelinastr]],

      Polygon[OGLGGB3D0]
     }],



    (*vektorja*)
    Graphics3D[{
      RGBColor[barva1],
      Text[
       MaTeX["\\color{blue}{\\hat{n}}", FontSize → velikostčrk], (1 + razmikoznak/l) n],
      Arrowheads[velpušč],

      Arrow[Tube[{{0, 0, 0}, n},
        debelina]]
     }],

    Graphics3D[{
      RGBColor[barva2],
      Text[MaTeX["\\color{cyan}{\\mathbf{\\left(0,0,1\\right)}}",
        FontSize → velikostčrk], {0, 0, l + razmikoznak}],
      Arrowheads[velpušč],

      Arrow[Tube[{{0, 0, 0}, l {0, 0, 1}},
        debelina]]
     }],
    (*kot*)

    Graphics3D[{
      Text[MaTeX["\\color{siva}{RM\\cdot}", FontSize → velikostčrk],
       (rkot + .4) RotationMatrix[.5 * 1, {1, 2, 3}].{0, 0, 1}],
```

```
      RGBColor[barva3],
      Arrowheads[velpušč],
      Arrow[
      Tube[
      Table[
           rkot RotationMatrix[delež * 1, {1, 2, 3}].{0, 0, 1},
           {delež, 1, 0, -1 / stranickot}]
, debelina]]}],
```

```
      (*nastavitve*)
      ImageSize → 6 {1920, 1080},
      Boxed → False,
      ViewVertical → {0, 0, 1},
      ViewPoint → .2 {5, -100, 30},
      Lighting → "Neutral"

    ];
  Export["c:\\Users\\gal\\Documents\\ŠOLA\\NAR\\fiz\\rn.avionški\\grafi\\obračanje
      ploskve iz 2D v 3D0.png", grafika]
```

Out[•]= c:\Users\gal\Documents\ŠOLA\NAR\fiz\rn.avionški\grafi\obračanje ploskve iz 2D v 3D0.png

```
In[•]:= SystemOpen[
   "c:\\Users\\gal\\Documents\\ŠOLA\\NAR\\fiz\\rn.avionški\\grafi\\obračanje ploskve
     iz 2D v 3D0.png"]
```

```
In[•]:= SystemOpen[
   "c:\\Users\\gal\\Documents\\ŠOLA\\NAR\\fiz\\rn.avionški\\grafi\\obračanje ploskve
     iz 2D v 3D0.png"]
```

samo prazen 2D

In[]:=
```
grafika = Show[
    Graphics[{
      RGBColor[0, 1, 1, 1],
      EdgeForm[Thickness[.001]],

      Polygon[OGLGGB]
     }],
    ImageSize → 4 * 1920
   ];
 Export[
  "c:\\Users\\gal\\Documents\\ŠOLA\\NAR\\fiz\\rn.avionški\\grafi\\grafi\\triangulacija0
    .png", grafika]
```

Out[]= c:\Users\gal\Documents\ŠOLA\NAR\fiz\rn.avionški\grafi\grafi\triangulacija0.png

In[]:=
```
SystemOpen[
 "c:\\Users\\gal\\Documents\\ŠOLA\\NAR\\fiz\\rn.avionški\\grafi\\grafi\\triangulacija0
   .png"]
```

In[]:=
```
SystemOpen[
 "c:\\Users\\gal\\Documents\\ŠOLA\\NAR\\fiz\\rn.avionški\\grafi\\grafi\\triangulacija0
   .png"]
```

razdelitev

In[]:=
```
grafika = Show[
    Graphics[{
      RGBColor[0, 1, 1, 1],
      EdgeForm[Thickness[.001]],

      Polygon[OGLGGB]
     }],
    Graphics[{
        RGBColor[{1, 0, 0}],
        Thickness[.001],

        Line[#]
       }] & /@ ({OGLGGB[[#[[1]] ]], OGLGGB[[#[[2]] ]]} & /@ {
        {6, 8},
        {5, 8},
        {4, 8},
        {3, 8},
        {3, 1},
        {3, -1},
        {3, -2},
        {3, -3}
       }),
    Graphics[{
      RGBColor[{0, 0, 0}],
      Arrowheads[.02],
      Thickness[.003],

      Arrow[
       dhbhsb = OGLGGB[[# ]] & /@ {-3, -4};
       {dhbhsb[[1]], dhbhsb[[1]] + .2 (dhbhsb[[2]] - dhbhsb[[1]])}
      ]
     }],
    Graphics[{
      Text[MaTeX["\\color{črna}{Z}", FontSize → 193.5], OGLGGB[[-3]] + {0, -.5}],
      RGBColor[{0, 0, 0}],
      Disk[OGLGGB[[-3]], .06]
     }],


    ImageSize → 4 * 1920
   ];
Export[
 "c:\\Users\\gal\\Documents\\ŠOLA\\NAR\\fiz\\rn.avionški\\grafi\\triangulacija1.png",
 grafika]
```

Out[]= c:\Users\gal\Documents\ŠOLA\NAR\fiz\rn.avionški\grafi\triangulacija1.png