

In[Ⓢ]:= **Clear**["Global`*"];

$$h = \frac{R \cos\left[\frac{\pi}{n}\right]}{\tan[\varphi]};$$

$$\text{Simplify}\left[\text{ArcCos}\left[\frac{R^2 \cos\left[\frac{2\pi}{n}\right] + h^2}{R^2 + h^2}\right]\right]$$

$$\text{Out[Ⓢ]}= \text{ArcCos}\left[\frac{\cos\left[\frac{2\pi}{n}\right] + \cos\left[\frac{\pi}{n}\right]^2 \cot[\varphi]^2}{1 + \cos\left[\frac{\pi}{n}\right]^2 \cot[\varphi]^2}\right]$$

```

In[ ]:= (*****
n = 100;
φ = 50 °;
R = 7;
(*****)
h =  $\frac{R \cos\left[\frac{\pi}{n}\right]}{\tan[\varphi]}$ ;
Show[

Table[
Graphics3D[{
  RGBColor[0, 1, 1, 1],
  EdgeForm[],

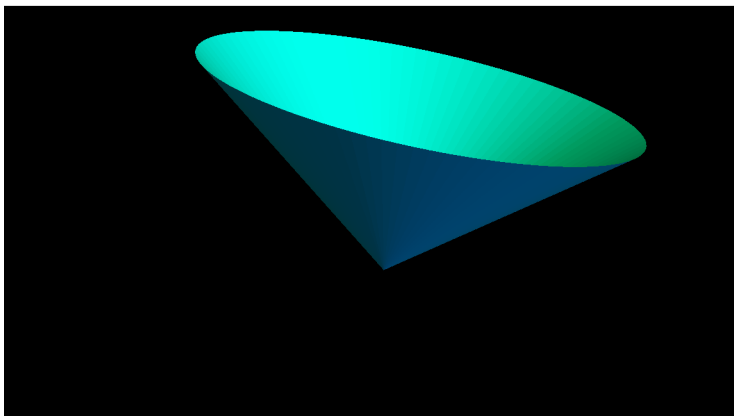
  Polygon[{
    {R Cos[(i - 1)  $\frac{2\pi}{n}$ ], R Sin[(i - 1)  $\frac{2\pi}{n}$ ], 0},
    {R Cos[i  $\frac{2\pi}{n}$ ], R Sin[i  $\frac{2\pi}{n}$ ], 0},
    {0, 0, -h}
  ]}
],
{i, n}],

Boxed → False,
(*ViewPoint→20 {Cos[φ], Sin[φ], .3},
SphericalRegion→Sphere[{0,0,0},1],

PlotRange→{{}, {}, {}, {}, {}}, *)
Background → Black,
ImageSize → .2 {1920, 1080}
]

```

Out[]:=



```

In[ ]:=  $\varphi_{mre} = \text{ArcCos}\left[\frac{\cos\left[\frac{2\pi}{n}\right] + \cos\left[\frac{\pi}{n}\right]^2 \cot[\varphi]^2}{1 + \cos\left[\frac{\pi}{n}\right]^2 \cot[\varphi]^2}\right];$ 

Rmre =  $\sqrt{R^2 + h^2}$ ;
grafikamreže = Show[

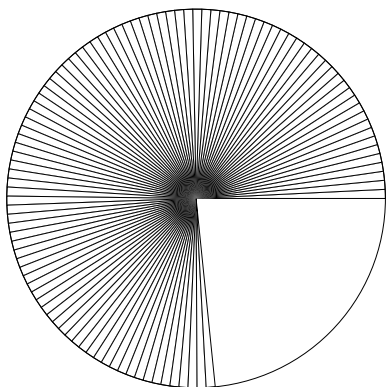
  Table[
    Graphics[{
      RGBColor[1, 1, 1, 1],
      EdgeForm[Thin],

      Polygon[{
        {Rmre Cos[(i - 1)  $\varphi_{mre}$ ], Rmre Sin[(i - 1)  $\varphi_{mre}$ ]},
        {Rmre Cos[i  $\varphi_{mre}$ ], Rmre Sin[i  $\varphi_{mre}$ ]},
        {0, 0}
      }],
    ],
    {i, n}],
  Graphics[{
    Circle[{0, 0}, Rmre],
    EdgeForm[Thin]
  }],

  Boxed → False
]

```

Out[]:=



```

In[ ]:= Export[
  StringJoin[{
    "c:\\Users\\gal\\Downloads\\piramidni",
    " n", ToString[n],
    " R", ToString[R],
    "  $\varphi$ ", ToString[Round[N[ $\frac{\varphi}{\circ}$ ]]],
    ".svg"
  }],
  grafikamreže];
CopyToClipboard[StringReplace[ToString[N[2 Rmre]], "." → ","]]

```

In[]:= Show[

```
Graphics[{  
  RGBColor[1, 1, 1, 1],  
  EdgeForm[Thin],
```

```
  Polygon[{#}]  
}] & /@ {
```

```
1.4 * {  
  {0, 4  $\sqrt{2}$ },  
  {-1, 4  $\sqrt{2}$ },  
  {-1, 0},  
  {-1, -2},  
  {- .5, -5},  
  {- .5, -8 - 6},  
  {.5, -8 - 6},  
  {.5, -5},  
  {1, -2},  
  {1, 4  $\sqrt{2}$ },  
  {0, 4  $\sqrt{2}$ },  
  {0, 0}  
},
```

```
1.4 * (# + {0, -6}) & /@ {  
  {- .5, -8},  
  {- .5, -8 -  $\sqrt{.3^2 + 1^2}$ },  
  {.5, -8 -  $\sqrt{.3^2 + 1^2}$ },  
  {.5, -8}  
}
```

```
},
```

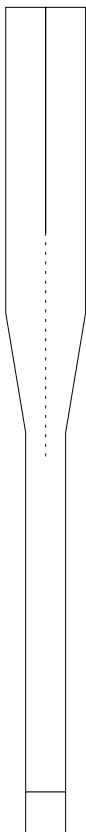
```
Graphics[{  
  Dotted,  
  RGBColor[0, 0, 0, 1],  
  Thickness[.002],
```

```
  Line[1.4 {{0, 0}, {0, -4  $\sqrt{2}$ }}]  
}],
```

Boxed → False

]

Out[]:=



```
In[ ]:= Export["c:\\Users\\gal\\Downloads\\helikopterček2.svg", %]
```

Out[]:= c:\\Users\\gal\\Downloads\\helikopterček2.svg

```
Clear["Global`*"];
```

```
In[ ]:= (*****)  
φ = 45 °;  
l = 3; (*rob*)  
y = 3;  
n = 2;  
(*****)  
x = l Sin[φ];  
z = l Cos[φ];  
Show[
```

```
Graphics3D[{  
  RGBColor[0, 1, 1],  
  EdgeForm[],  
  
  Polygon[#]  
}] & /@  
(  
  (RotationMatrix[ $\frac{\pi}{2}$ , {1, 0, 0}].#) & /@#) & /@ Join[  
  Table[  
    {  
      {(i - 1) x, - $\frac{y}{2}$ , If[IntegerQ[ $\frac{i}{2}$ ], 1, -1]  $\frac{z}{2}$ },  
      {i x, - $\frac{y}{2}$ , If[IntegerQ[ $\frac{i}{2}$ ], -1, 1]  $\frac{z}{2}$ },  
      {i x,  $\frac{y}{2}$ , If[IntegerQ[ $\frac{i}{2}$ ], -1, 1]  $\frac{z}{2}$ },  
      {(i - 1) x,  $\frac{y}{2}$ , If[IntegerQ[ $\frac{i}{2}$ ], 1, -1]  $\frac{z}{2}$ },  
    },  
    {i, n}],  
  Table[  
    {  
      {-(i - 1) x, - $\frac{y}{2}$ , If[IntegerQ[ $\frac{i}{2}$ ], 1, -1]  $\frac{z}{2}$ },  
      {-i x, - $\frac{y}{2}$ , If[IntegerQ[ $\frac{i}{2}$ ], -1, 1]  $\frac{z}{2}$ },  
      {-i x,  $\frac{y}{2}$ , If[IntegerQ[ $\frac{i}{2}$ ], -1, 1]  $\frac{z}{2}$ },  
      {-(i - 1) x,  $\frac{y}{2}$ , If[IntegerQ[ $\frac{i}{2}$ ], 1, -1]  $\frac{z}{2}$ },  
    },  
    {i, n}],  
  ]),
```



```
In[ ]:= grafikamreže = Show[
  Graphics[{
    RGBColor[1, 1, 1, 0],
    EdgeForm[Thin],

    Polygon[#]
  }] & /@
Join[
  Table[
    {
      {(i - 1) 1, - $\frac{y}{2}$ },
      {i 1, - $\frac{y}{2}$ },
      {i 1,  $\frac{y}{2}$ },
      {(i - 1) 1,  $\frac{y}{2}$ }
    },
    {i, n}],
  Table[
    {
      {-(i - 1) 1, - $\frac{y}{2}$ },
      {-i 1, - $\frac{y}{2}$ },
      {-i 1,  $\frac{y}{2}$ },
      {-(i - 1) 1,  $\frac{y}{2}$ }
    },
    {i, n}]
],

Boxed → False
]
```

Out[]:=

--	--	--	--

```

In[Ⓢ]:= Export[
  StringJoin[{
    "c:\\Users\\gal\\Downloads\\w",
    " n", ToString[n],
    " R", ToString[R],
    "  $\varphi$ ", ToString[Round[N[ $\frac{\varphi}{\circ}$ ]]],
    ".svg"
  }],
  grafikamreže];
CopyToClipboard[StringReplace[ToString[N[
  2 Rmre
]], "." → ", "]]

```

```

In[ ]:= Show[

Graphics[{
  RGBColor[0, 1, 1, 0],
  EdgeForm[Thin],

  Polygon[2 {
    {0, 1},
    { $-\frac{\sqrt{3}}{2}, -\frac{1}{2}$ },
    { $\frac{\sqrt{3}}{2}, -\frac{1}{2}$ }
  }
  ]],

Graphics[{
  RGBColor[0, 1, 1, 0],
  EdgeForm[Thin],

  Polygon[{
    {0, -1},
    { $-\frac{\sqrt{3}}{2}, \frac{1}{2}$ },
    { $\frac{\sqrt{3}}{2}, \frac{1}{2}$ }
  }
  ]],

Graphics[{
  RGBColor[0, 0, 0, 1],

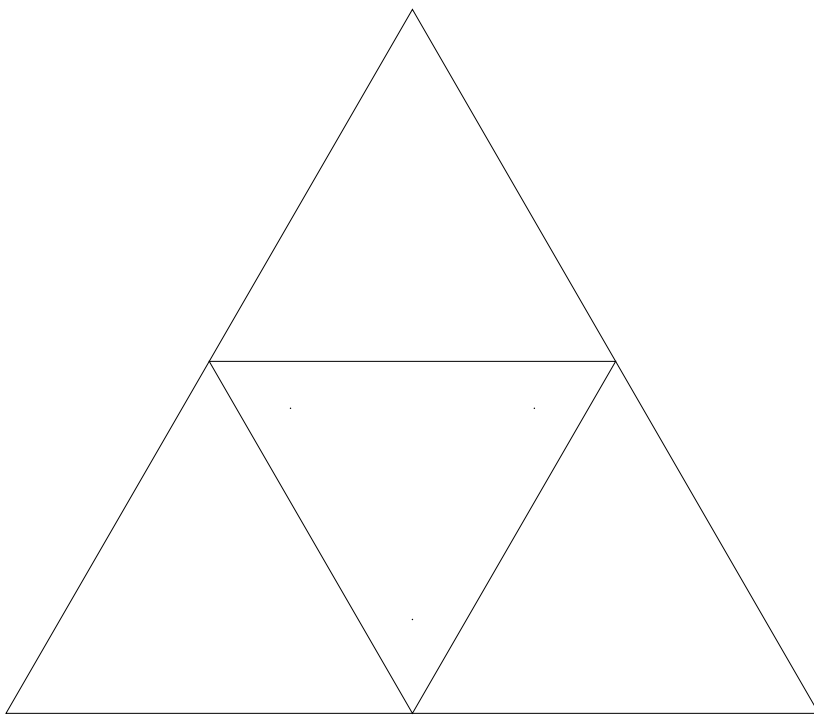
  Disk[#, .003]
}] & /@ {
  {0, -1},
  { $-\frac{\sqrt{3}}{2}, \frac{1}{2}$ },
  { $\frac{\sqrt{3}}{2}, \frac{1}{2}$ }
}
],

Boxed → False

]

```

Out[]=



In[]:= **Export**["c:\\Users\\gal\\Downloads\\tetraeder.svg", %]

Out[]= c:\\Users\\gal\\Downloads\\tetraeder.svg