

```

(*****)
n = 10;
φ = 50 °;
R = 7;
velčrk = 215;
(*****)
h =  $\frac{R \cos\left[\frac{\pi}{n}\right]}{\tan[\varphi]}$ ;
grafika = 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}],

Table[
Graphics3D[{
  RGBColor[{1, 0, 0, .5}],
  EdgeForm[],

  Polygon[{
    {0, 0, -h} + RotationMatrix[i  $\frac{\varphi}{50}$ ,
    { {0, 0, 1}, {0, 0, -h} +  $\frac{\{R, 0, h\} + \{R \cos[\frac{2\pi}{n}], R \sin[\frac{2\pi}{n}], h\}}{2}$  }].{0, 0, 2},
    {0, 0, -h} + RotationMatrix[(i + 1)  $\frac{\varphi}{50}$ , { {0, 0, 1},
    {0, 0, -h} +  $\frac{\{R, 0, h\} + \{R \cos[\frac{2\pi}{n}], R \sin[\frac{2\pi}{n}], h\}}{2}$  }].{0, 0, 2},
    {0, 0, -h}
  ]}
],
{i, 0, 50}],

Table[
Graphics3D[{

If[i == 25,

Text[MaTeX["\\color{red}{\\alpha}"], FontSize → velčrk],

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{0, 0, -h} + .7 RotationMatrix[i  $\frac{\varphi}{50}$ ,
  {{0, 0, 1}, {0, 0, -h} +  $\frac{\{R, 0, h\} + \{R \cos[\frac{2\pi}{n}], R \sin[\frac{2\pi}{n}], h\}}{2}}$ }. {0, 0, 2}],
Nothing
],
RGBColor[{1, 0, 0, 1}],
EdgeForm[],

Tube[{
  {0, 0, -h} + RotationMatrix[i  $\frac{\varphi}{50}$ ,
    {{0, 0, 1}, {0, 0, -h} +  $\frac{\{R, 0, h\} + \{R \cos[\frac{2\pi}{n}], R \sin[\frac{2\pi}{n}], h\}}{2}}$ }. {0, 0, 2},
    {0, 0, -h} + RotationMatrix[(i + 1)  $\frac{\varphi}{50}$ , {{0, 0, 1},
      {0, 0, -h} +  $\frac{\{R, 0, h\} + \{R \cos[\frac{2\pi}{n}], R \sin[\frac{2\pi}{n}], h\}}{2}}$ }. {0, 0, 2}
    }, .01]
}],
{i, 0, 50}],

Graphics3D[{

  Text[MaTeX["\\color{siva}{h}", FontSize → velčrk], {- .5, 0, -  $\frac{h}{2}$ }],
  Thickness[.003],
  RGBColor[.3 {1, 1, 1} ],
  Tube[{{0, 0, -h}, {0, 0, 0}}, .03]

}],

Graphics3D[{

  Text[MaTeX["\\color{red}{R}", FontSize → velčrk], { $\frac{R}{2}$ , 0, .5}],

  RGBColor[{1, 0, 0} ],
  Tube[{{0, 0, 0}, {R, 0, 0}}, .03]

}],

Graphics3D[{

  Dashed,
  RGBColor[{0, 0, 0} ],

  Tube[{{0, 0, -h}, {0, 0, -h} +  $\frac{\{R, 0, h\} + \{R \cos[\frac{2\pi}{n}], R \sin[\frac{2\pi}{n}], h\}}{2}}$ }, .01]

}],

Boxed → False,

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

PlotRange→{{},{},{},{},*}
ImageSize→6*1920
];
Export[
  "c:\\Users\\gal\\Documents\\ŠOLA\\NAR\\fiz\\rn.aviončki\\grafi\\grafi\\piramidni.png"
, %]
Out[ ]:= c:\Users\gal\Documents\ŠOLA\NAR\fiz\rn.aviončki\grafi\grafi\piramidni.png

In[ ]:= SystemOpen[
  "c:\\Users\\gal\\Documents\\ŠOLA\\NAR\\fiz\\rn.aviončki\\grafi\\grafi\\piramidni.png"
]

In[ ]:= SystemOpen[
  "c:\\Users\\gal\\Documents\\ŠOLA\\NAR\\fiz\\rn.aviončki\\grafi\\grafi\\piramidni.png"
]

In[ ]:= SystemOpen[
  "c:\\Users\\gal\\Documents\\ŠOLA\\NAR\\fiz\\rn.aviončki\\grafi\\grafi\\piramidni.png"
]

In[ ]:= α = 50 °;
velčrk = 193.5;
deb1 = .001;
deb2 = .005;
grafika = Show[
  Graphics[{
    Dashed,
    RGBColor[0, 0, 0],
    Thickness[deb1],
    Line[{0, 0}, {0, .8}]}],

  Graphics[{
    Dashed,
    RGBColor[0, 0, 0],
    Thickness[deb1],
    Line[{-.1, .1 + .5 Cos[α]}, {.85, .1 + .5 Cos[α]}]}],

  Graphics[{
    RGBColor[.8, .8, 1],
    Disk[{0, .1}, .1, { $\frac{\pi}{2} - \alpha$ ,  $\frac{\pi}{2}$ }]}],

  Graphics[{

    Text[MaTeX["\\color{blue}{\\alpha}"], FontSize→velčrk],

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{0, .1} + .7 * .1 * {Cos[ $\frac{\pi - \alpha}{2}$ ], Sin[ $\frac{\pi - \alpha}{2}$ ]},
Thickness[deb1],

RGBColor[{0, 0, 1}],
Circle[{0, .1}, .1, { $\frac{\pi}{2} - \alpha$ ,  $\frac{\pi}{2}$ }
]],

Graphics[{

  RGBColor[{.8, .8, 1}],
  Disk[{0, .1} + .5 {Sin[ $\alpha$ ], Cos[ $\alpha$ ]}, .1, { $\pi - \alpha$ ,  $\pi$ }
]],

Graphics[{
  Thickness[deb1],

  Text[MaTeX["\\color{blue}{\\alpha}"], FontSize -> velčrk],
  {0, .1} + .5 {Sin[ $\alpha$ ], Cos[ $\alpha$ ]} + .7 * .1 * {Cos[ $\pi - \frac{\alpha}{2}$ ], Sin[ $\pi - \frac{\alpha}{2}$ ]},

  RGBColor[{0, 0, 1}],
  Circle[{0, .1} + .5 {Sin[ $\alpha$ ], Cos[ $\alpha$ ]}, .1, { $\pi - \alpha$ ,  $\pi$ }
]],

Graphics[{

  Text[MaTeX["\\color{blue}{\\mathbf{F}_{zi}}"], FontSize -> velčrk],
   $\frac{1}{2}$  Total[{0, .1} + .5 {Sin[ $\alpha$ ], Cos[ $\alpha$ ]},
    {0, .1} + .5 {Sin[ $\alpha$ ], Cos[ $\alpha$ ]} + .3 {-Cos[ $\alpha$ ], Sin[ $\alpha$ ]}] + .04 {Sin[ $\alpha$ ], Cos[ $\alpha$ ]},

  RGBColor[0, 0, 1],
  Thickness[deb2],
  Arrowheads[.03],
  Arrow[{0, .1} + .5 {Sin[ $\alpha$ ], Cos[ $\alpha$ ]},
    {0, .1} + .5 {Sin[ $\alpha$ ], Cos[ $\alpha$ ]} + .3 {-Cos[ $\alpha$ ], Sin[ $\alpha$ ]}]
]],

Graphics[{

  Text[MaTeX["\\color{green}{m_i\\mathbf{g}}"], FontSize -> velčrk],
   $\frac{\text{Total}[\{0, .1\} + .5 \{\text{Sin}[\alpha], \text{Cos}[\alpha]\}, \{0, .1\} + .5 \{\text{Sin}[\alpha], \text{Cos}[\alpha]\} + .4 \{0, -1\}]}{2} +$ 
    .04 {1, 0}],

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    RGBColor[0, 1, 0],
    Thickness[deb2],
    Arrowheads[.03],
    Arrow[{0, .1} + .5 {Sin[α], Cos[α]}, {0, .1} + .5 {Sin[α], Cos[α]} + .4 {0, -1}}]
  }],

Graphics[{
  RGBColor[0, 1, 1],
  Thickness[.002],
  Line[{0, .1}, {0, .1} + {Sin[α], Cos[α]}]}]
}],

ImageSize → 4 * 1920

];
Export["c:\\Users\\gal\\Documents\\ŠOLA\\NAR\\fiz\\rn.aviončki\\grafi\\sile
na piramidno letalo.png", grafika]

Out[8]= c:\\Users\\gal\\Documents\\ŠOLA\\NAR\\fiz\\rn.aviončki\\grafi\\sile na piramidno letalo.png

In[9]:= SystemOpen["c:\\Users\\gal\\Documents\\ŠOLA\\NAR\\fiz\\rn.aviončki\\grafi\\sile
na piramidno letalo.png"]

In[9]:= SystemOpen["c:\\Users\\gal\\Documents\\ŠOLA\\NAR\\fiz\\rn.aviončki\\grafi\\sile
na piramidno letalo.png"]

In[9]:= SystemOpen["c:\\Users\\gal\\Documents\\ŠOLA\\NAR\\fiz\\rn.aviončki\\grafi\\sile
na piramidno letalo.png"]

In[9]:= SystemOpen["c:\\Users\\gal\\Documents\\ŠOLA\\NAR\\fiz\\rn.aviončki\\grafi\\sile
na piramidno letalo.png"]

In[9]:= SystemOpen["c:\\Users\\gal\\Documents\\ŠOLA\\NAR\\fiz\\rn.aviončki\\grafi\\sile
na piramidno letalo.png"]

In[9]:= SystemOpen["c:\\Users\\gal\\Documents\\ŠOLA\\NAR\\fiz\\rn.aviončki\\grafi\\sile
na piramidno letalo.png"]

In[9]:= SystemOpen[
  "c:\\Users\\gal\\Documents\\ŠOLA\\NAR\\fiz\\rn.aviončki\\grafi\\grafi\\sile
na piramidno letalo.png"]

In[9]:= SystemOpen[
  "c:\\Users\\gal\\Documents\\ŠOLA\\NAR\\fiz\\rn.aviončki\\grafi\\grafi\\sile
na piramidno letalo.png"]

In[9]:= SystemOpen[
  "c:\\Users\\gal\\Documents\\ŠOLA\\NAR\\fiz\\rn.aviončki\\grafi\\grafi\\sile
na piramidno letalo.png"]

```

```
In[ ]:= SystemOpen[
  "c:\\Users\\gal\\Documents\\ŠOLA\\NAR\\fiz\\rn.aviončki\\grafi\\grafi\\sile
  na piramidno letalo.png"]
```

```
In[ ]:= SystemOpen[
  "c:\\Users\\gal\\Documents\\ŠOLA\\NAR\\fiz\\rn.aviončki\\grafi\\grafi\\sile
  na piramidno letalo.png"]
```

```
In[ ]:= SystemOpen[
  "c:\\Users\\gal\\Documents\\ŠOLA\\NAR\\fiz\\rn.aviončki\\grafi\\grafi\\sile
  na piramidno letalo.png"]
```

```
In[ ]:= SystemOpen[
  "c:\\Users\\gal\\Documents\\ŠOLA\\NAR\\fiz\\rn.aviončki\\grafi\\grafi\\sile
  na piramidno letalo.png"]
```

```
In[ ]:= SystemOpen[
  "c:\\Users\\gal\\Documents\\ŠOLA\\NAR\\fiz\\rn.aviončki\\grafi\\grafi\\sile
  na piramidno letalo.png"]
```

```
Out[ ]:= c:\\Users\\gal\\Downloads\\rn.aviončki\\grafi\\sile na piramidno letalo.pdf
```