

Diskrētā matemātika

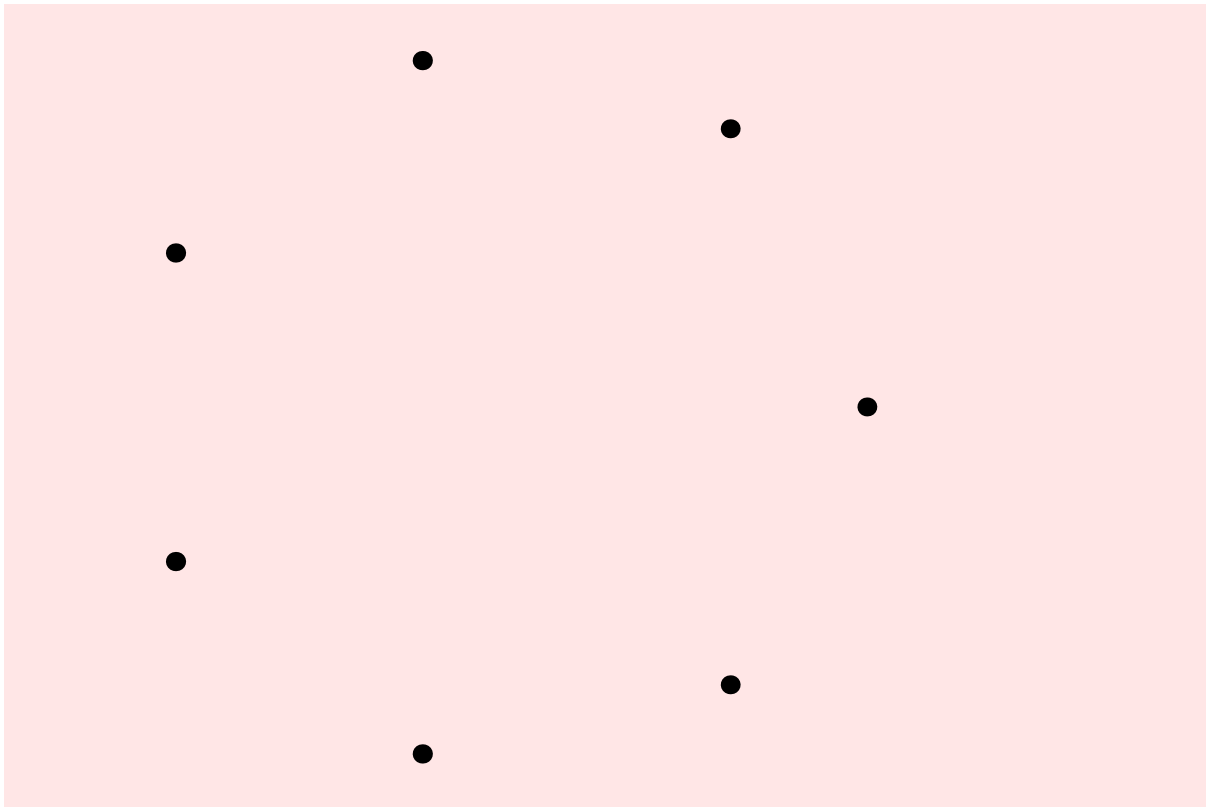
Grafu piemēri (16.03.2007.)

asoc. prof. Armands Gricāns, DU Matemātikas katedra

```
In[1]:= <<DiscreteMath`Combinatorica`
```

Tukšie grafi

```
In[2]:= ShowGraph[EmptyGraph[7]]
```



```
Out[2]= - Graphics -
```

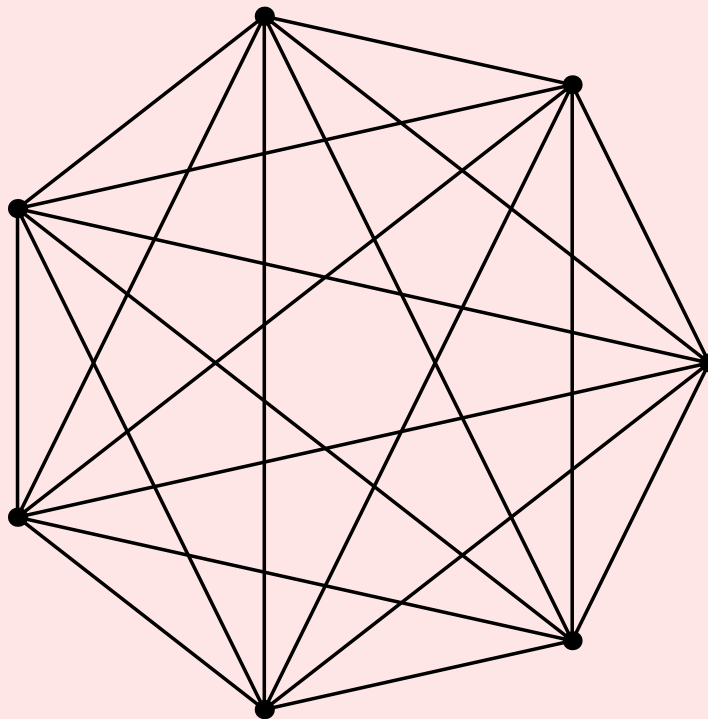
```
In[3]:= ShowGraphArray[Table[EmptyGraph[n], {n, 1, 6}]]
```



```
Out[3]= - GraphicsArray -
```

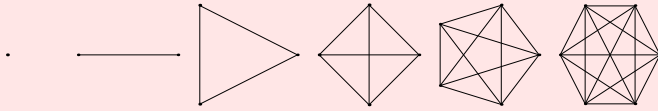
Pilnie grafi

```
In[4]:= ShowGraph[CompleteGraph[7]]
```



```
Out[4]= - Graphics -
```

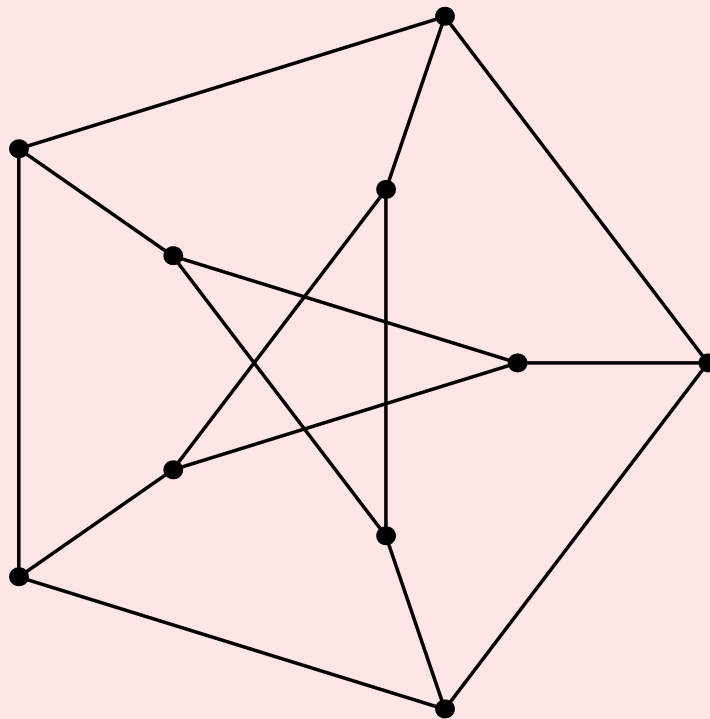
```
In[5]:= ShowGraphArray[Table[CompleteGraph[n], {n, 1, 6}]]
```



```
Out[5]= - GraphicsArray -
```

Petersena grafs

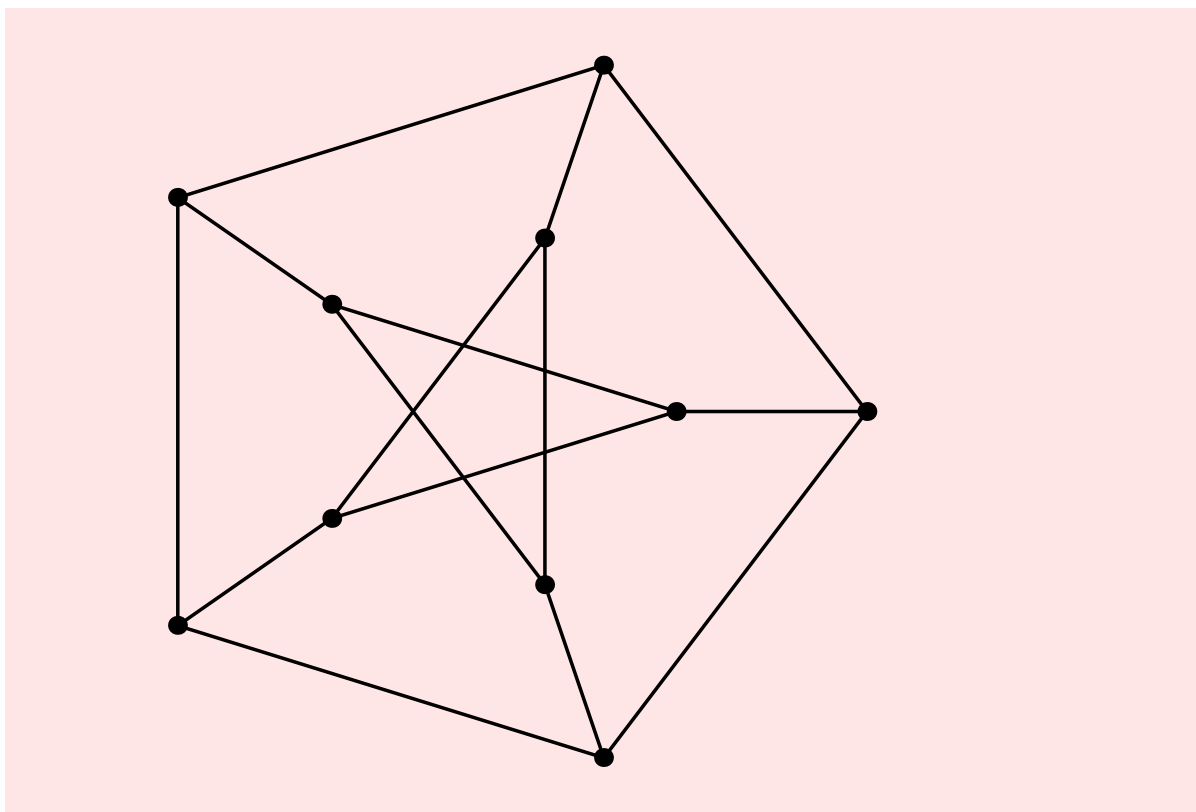
```
In[6]:= ShowGraph[PetersenGraph]
```



```
Out[6]= - Graphics -
```

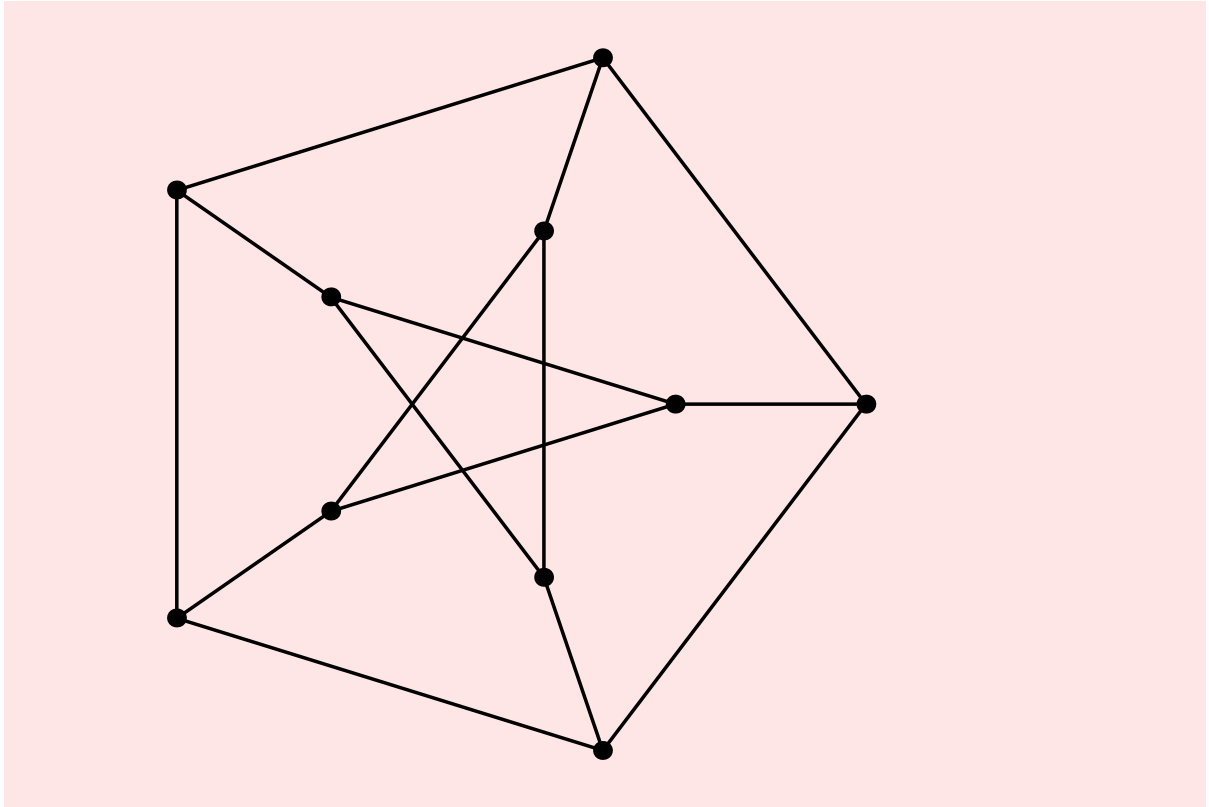
Vispārinātie Petersena grafi

```
In[7]:= ShowGraph[GeneralizedPetersenGraph[5,2]]
```



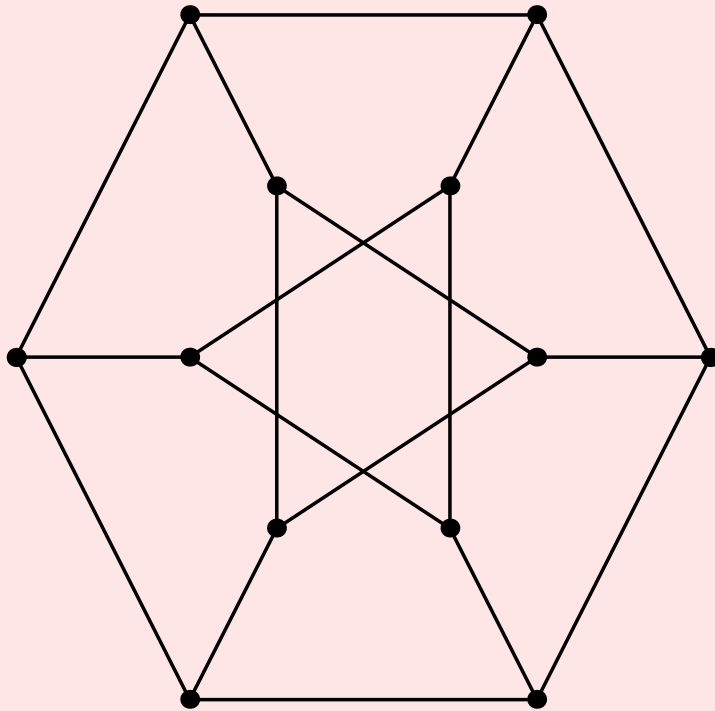
```
Out[7]= - Graphics -
```

```
In[8]:= ShowGraph[GeneralizedPetersenGraph[5,3]]
```



```
Out[8]= - Graphics -
```

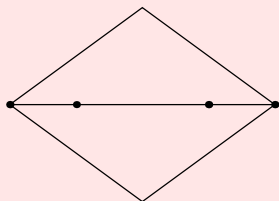
```
In[9]:= ShowGraph[GeneralizedPetersenGraph[6,4]]
```



```
Out[9]= - Graphics -
```

```
In[10]:=
```

```
ShowGraphArray[Table[GeneralizedPetersenGraph[2,n],{n,1,1}]]
```

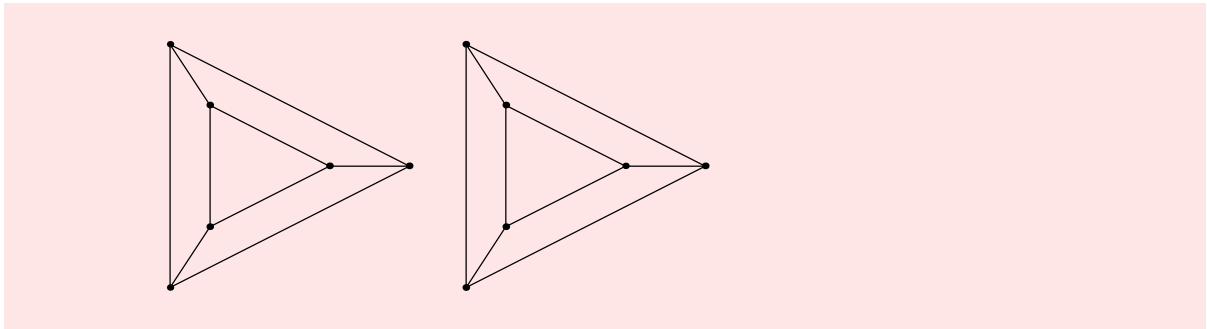


```
Out[10]=
```

```
- GraphicsArray -
```

In[11]:=

```
ShowGraphArray[Table[GeneralizedPetersenGraph[3,n],{n,1,2}]]
```

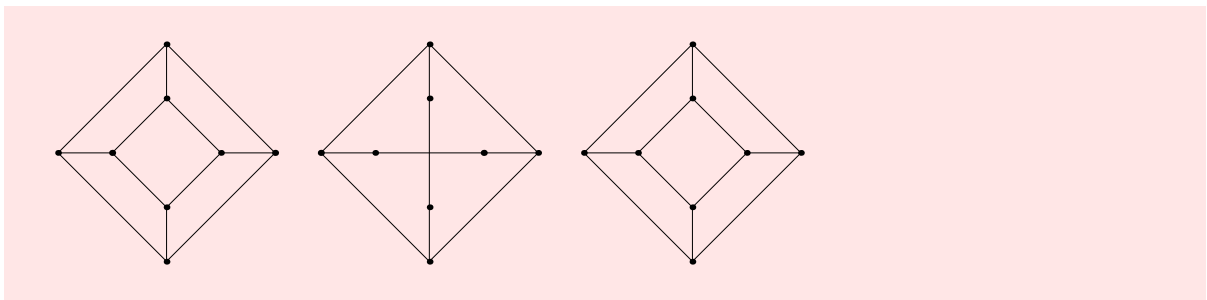


Out[11]=

```
- GraphicsArray -
```

In[12]:=

```
ShowGraphArray[Table[GeneralizedPetersenGraph[4,n],{n,1,3}]]
```

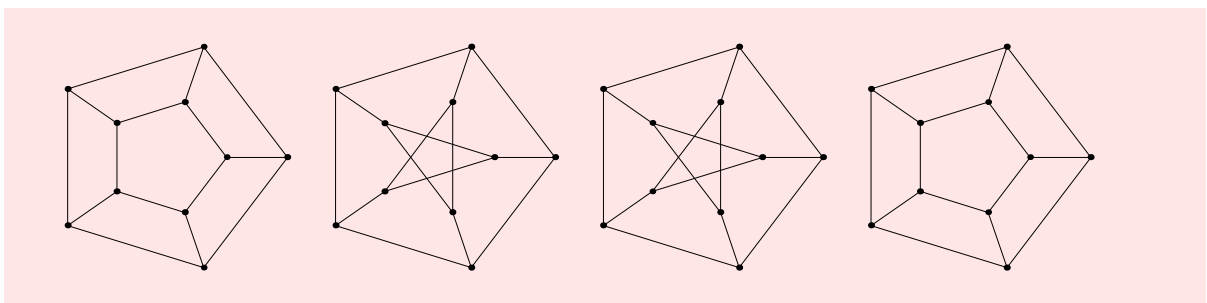


Out[12]=

```
- GraphicsArray -
```

In[13]:=

```
ShowGraphArray[Table[GeneralizedPetersenGraph[5,n],{n,1,4}]]
```

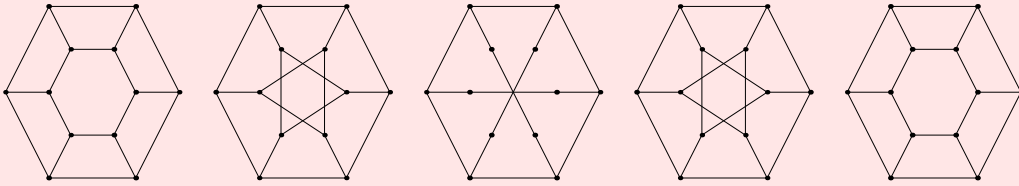


Out[13]=

```
- GraphicsArray -
```

In[14]:=

```
ShowGraphArray[Table[GeneralizedPetersenGraph[6,n],{n,1,5}]]
```

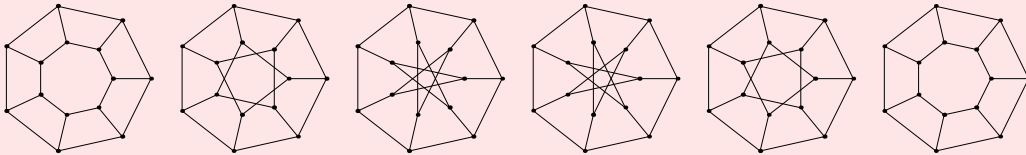


Out[14]=

```
- GraphicsArray -
```

In[15]:=

```
ShowGraphArray[Table[GeneralizedPetersenGraph[7,n],{n,1,6}]]
```

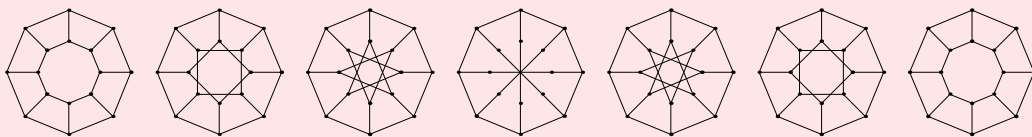


Out[15]=

```
- GraphicsArray -
```

In[16]:=

```
ShowGraphArray[Table[GeneralizedPetersenGraph[8,n],{n,1,7}]]
```



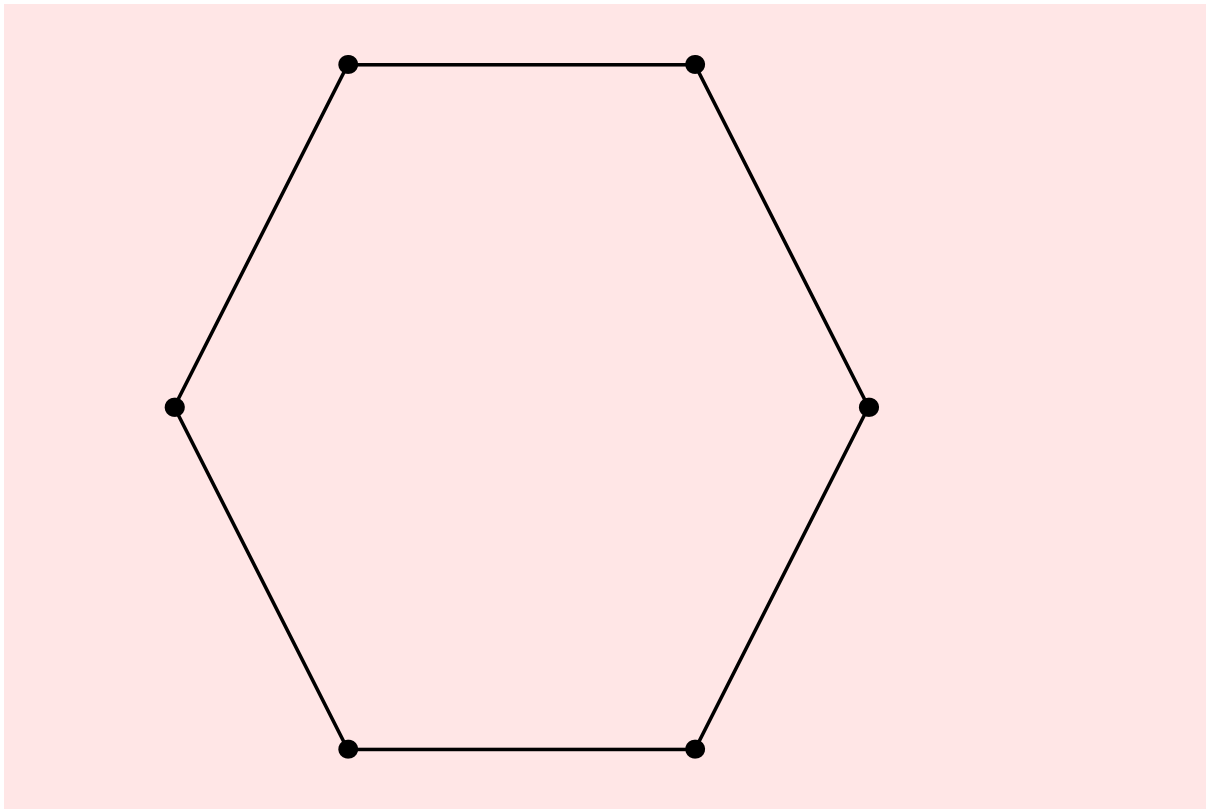
Out[16]=

```
- GraphicsArray -
```


Vienkāršie cikli

In[17]:=

```
ShowGraph[Cycle[6]]
```

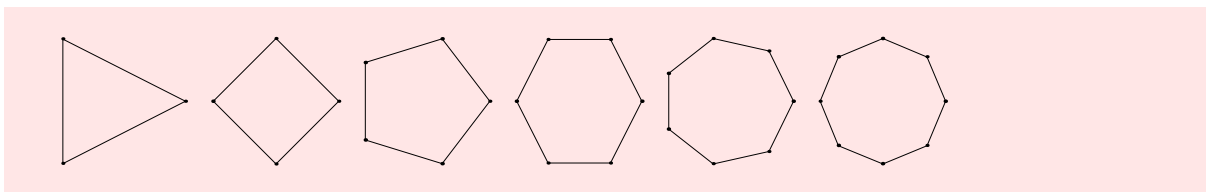


Out[17]=

```
- Graphics -
```

In[18]:=

```
ShowGraphArray[Table[Cycle[n], {n, 3, 8}]]
```



Out[18]=

```
- GraphicsArray -
```

Vienkāršās ķēdes

In[19]:=

```
ShowGraph[Path[6]]
```



Out[19]=

```
- Graphics -
```

In[20]:=

```
ShowGraphArray[Table[Path[n], {n, 1, 5}]]
```



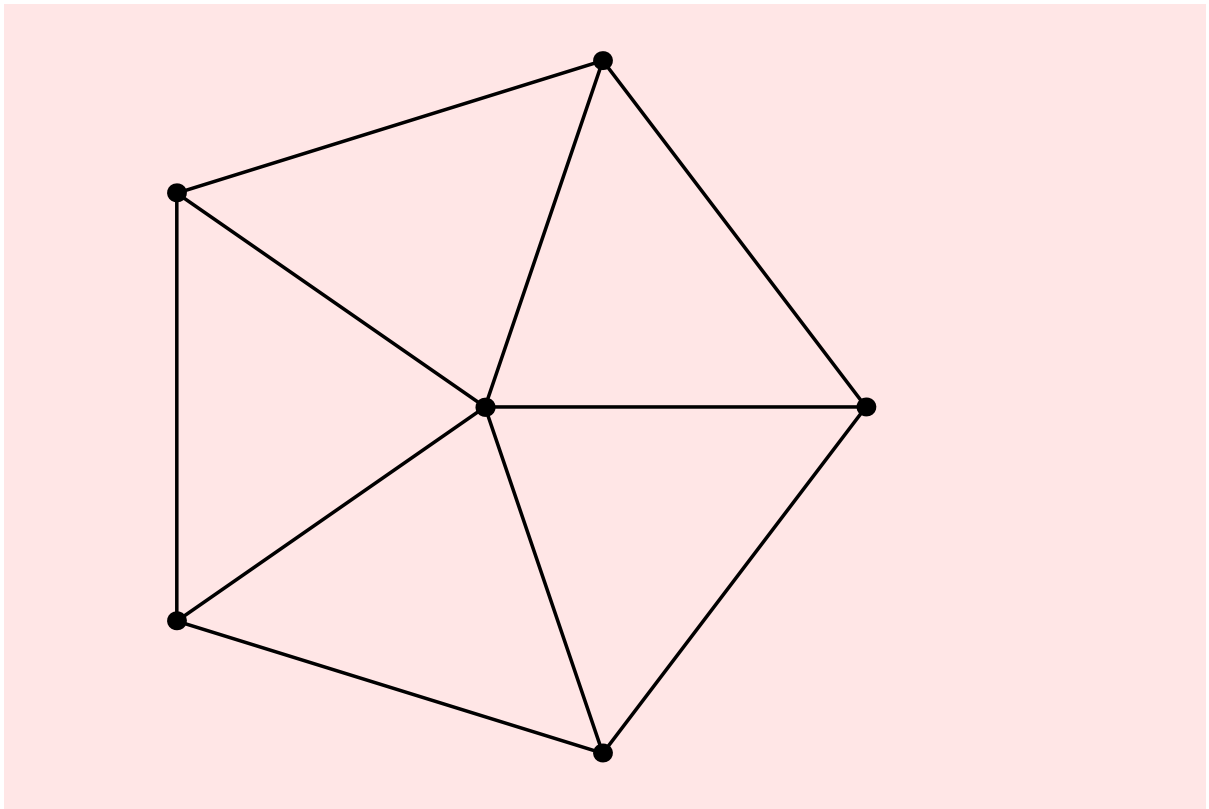
Out[20]=

```
- GraphicsArray -
```

Ritęri

In[21]:=

```
ShowGraph[Wheel[6]]
```

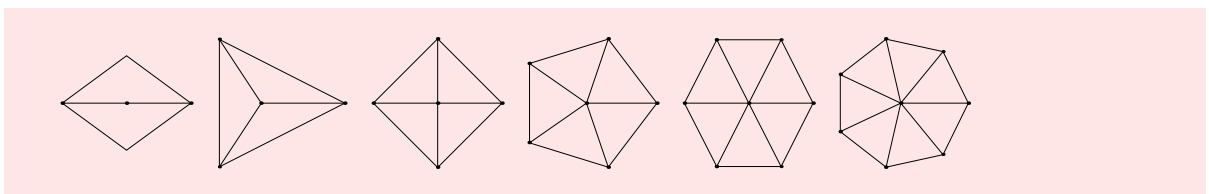


Out[21]=

```
- Graphics -
```

In[22]:=

```
ShowGraphArray[Table[Wheel[n], {n, 3, 8}]]
```



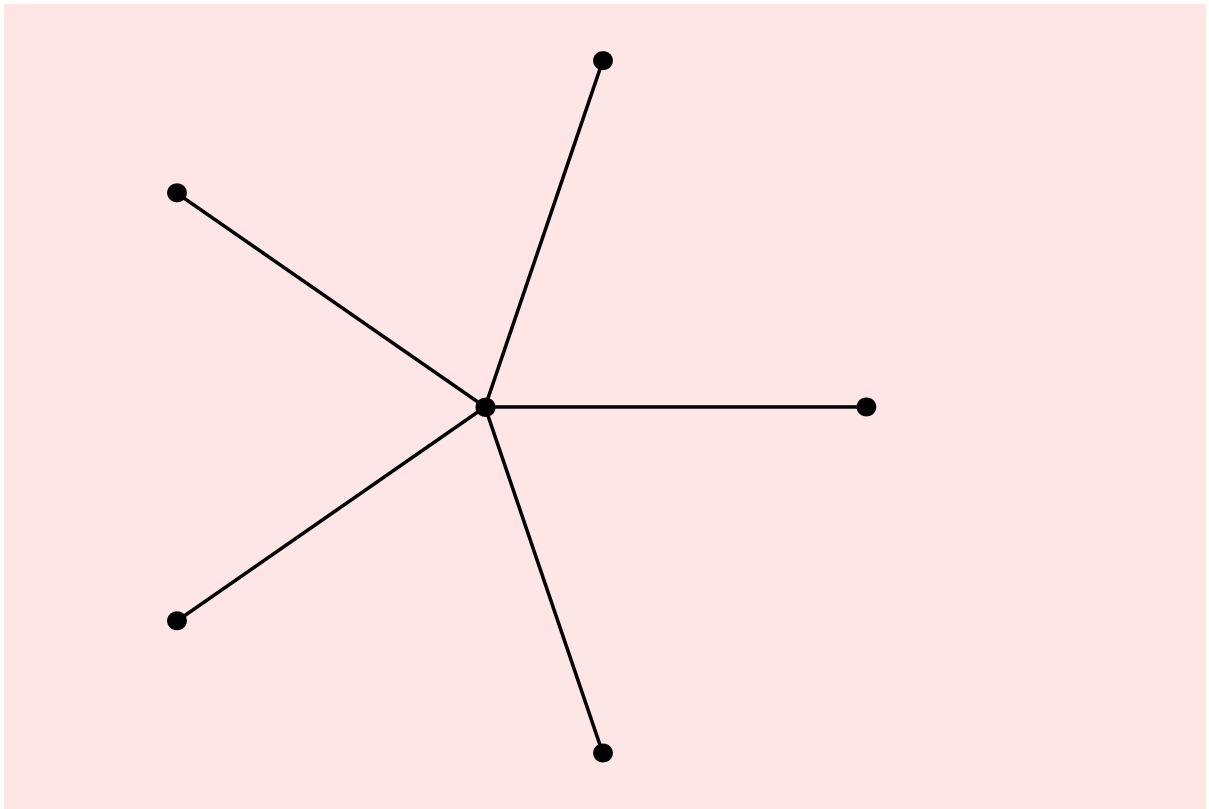
Out[22]=

```
- GraphicsArray -
```

Zvaigznes

In[23]:=

```
ShowGraph[Star[6]]
```

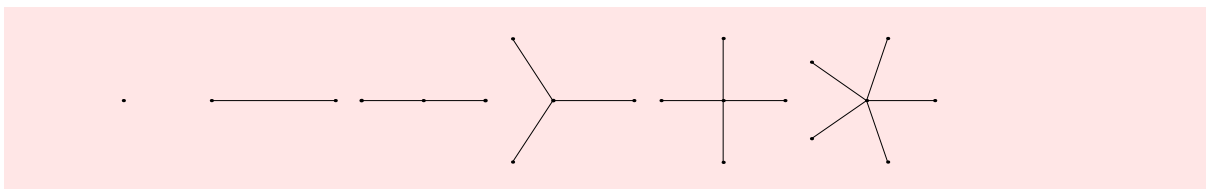


Out[23]=

```
- Graphics -
```

In[24]:=

```
ShowGraphArray[Table[Star[n], {n, 1, 6}]]
```



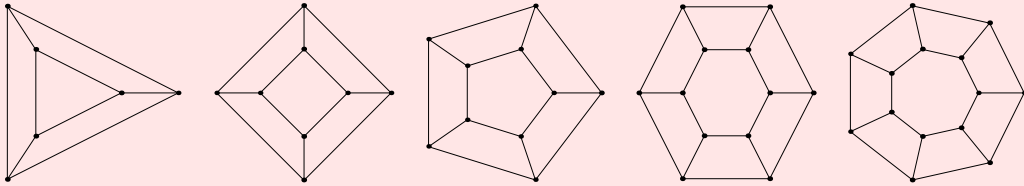
Out[24]=

```
- GraphicsArray -
```

Prizmu grafi

In[25]:=

```
ShowGraphArray[Table[GeneralizedPetersenGraph[n,1],{n,3,7}]]
```



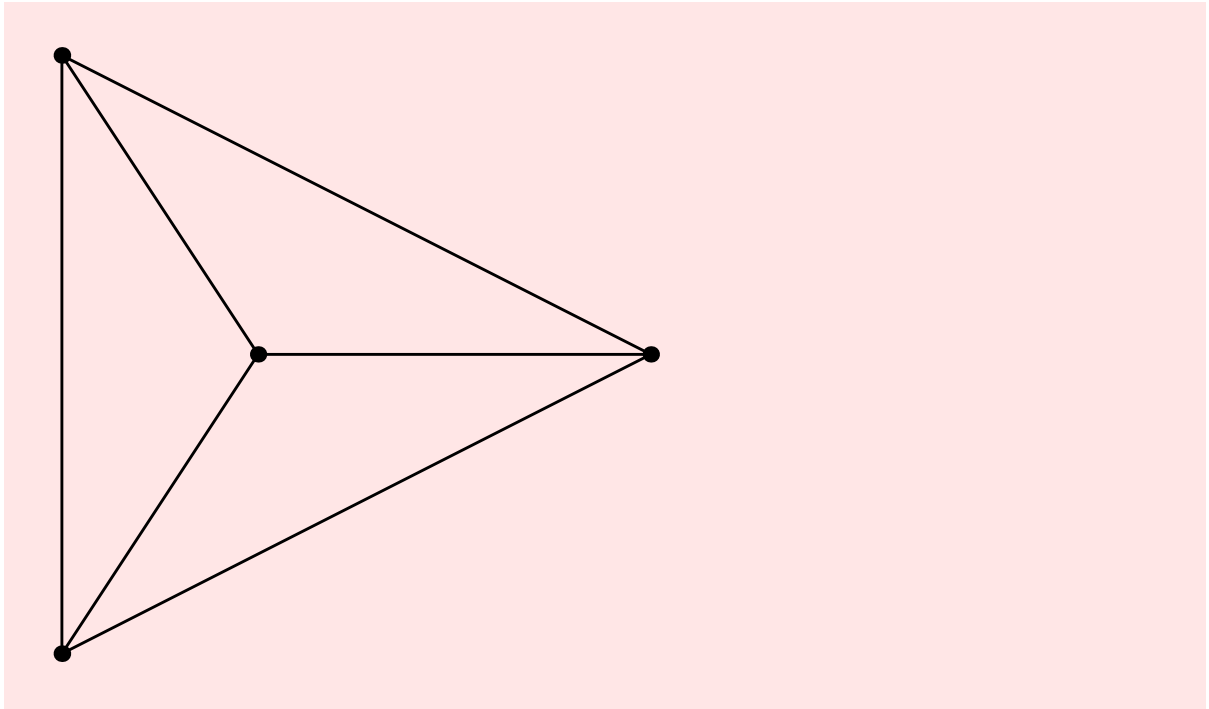
Out[25]=

```
- GraphicsArray -
```

Regulāru daudzskaldņu grafi

In[26]:=

```
ShowGraph[TetrahedralGraph]
```

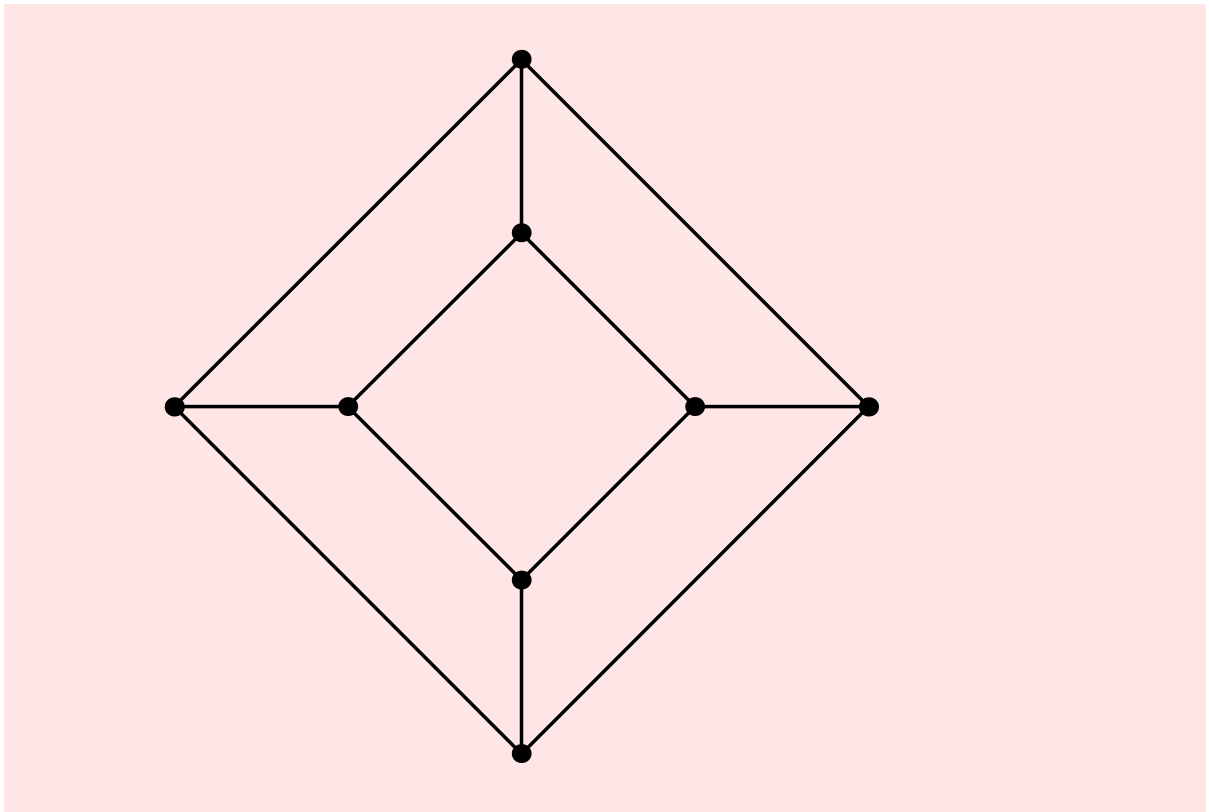


Out[26]=

```
- Graphics -
```

In[27]:=

```
ShowGraph[CubicalGraph]
```

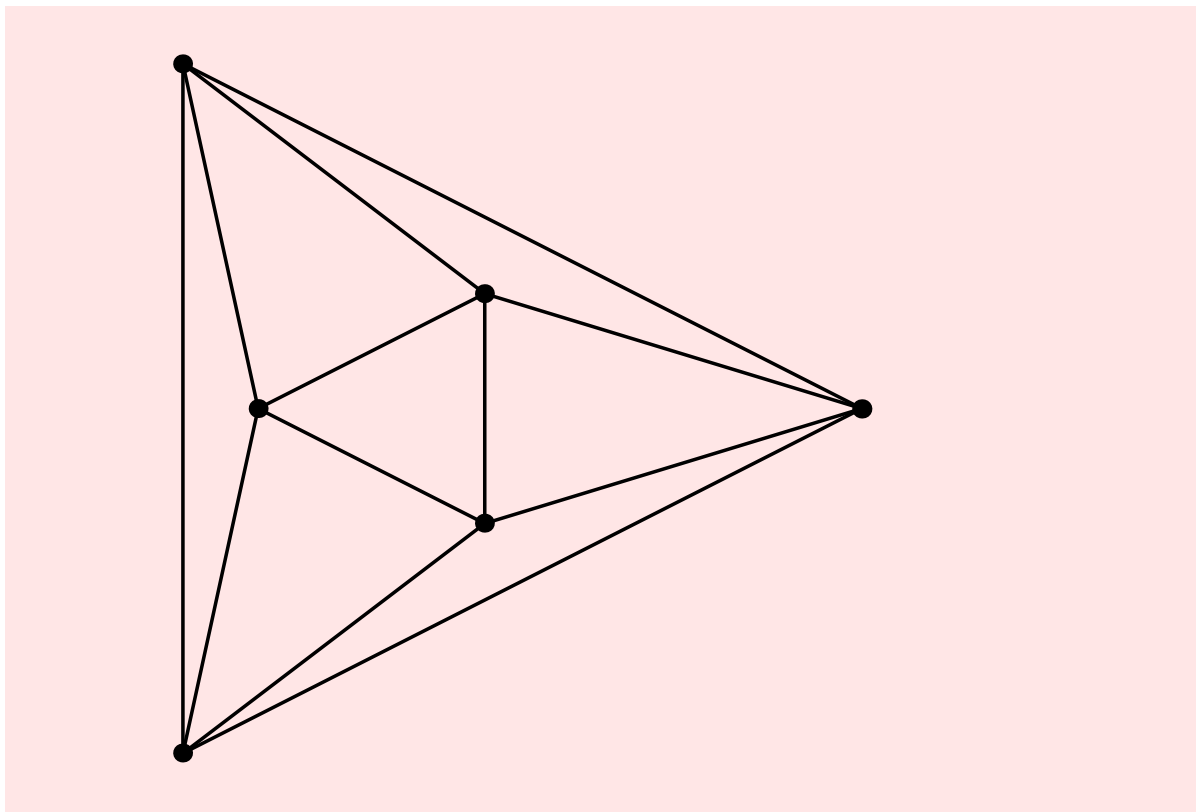


Out[27]=

```
- Graphics -
```

```
In[28]:=
```

```
ShowGraph[OctahedralGraph]
```



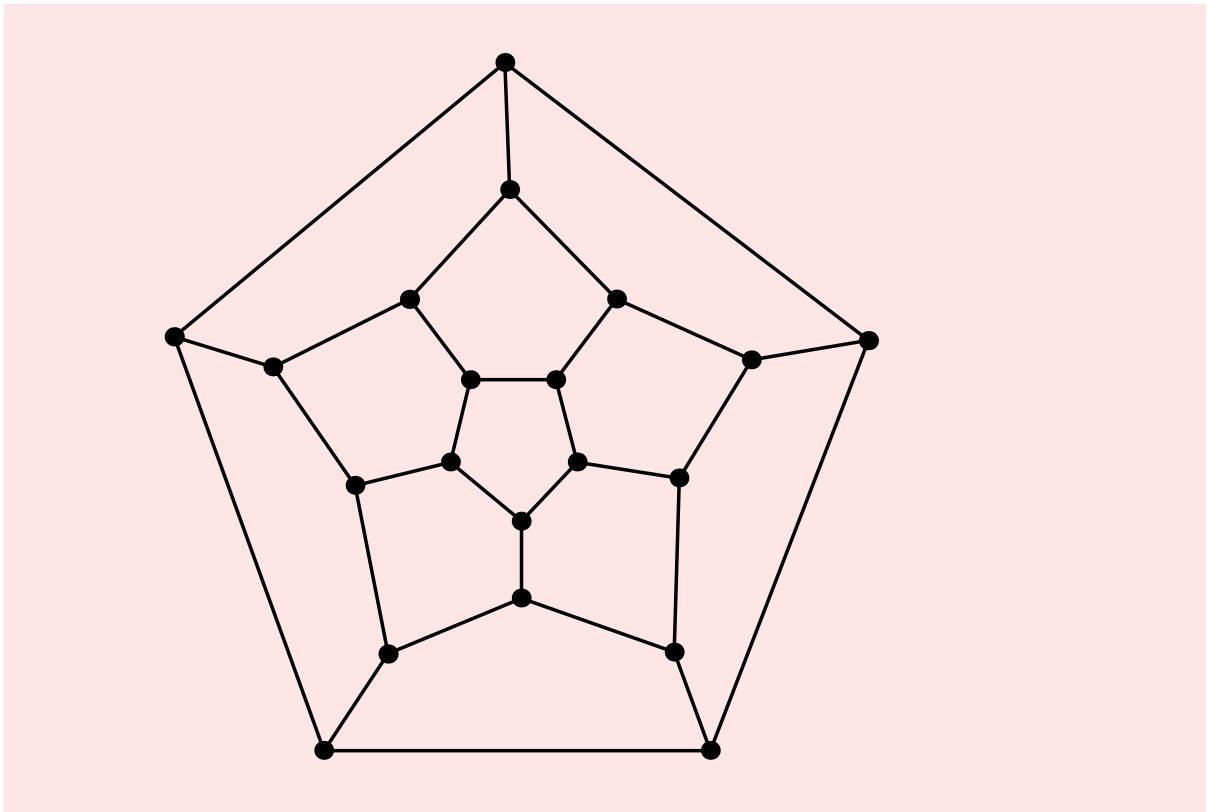
```
Out[28]=
```

```
- Graphics -
```



```
In[29]:=
```

```
ShowGraph[DodecahedralGraph]
```

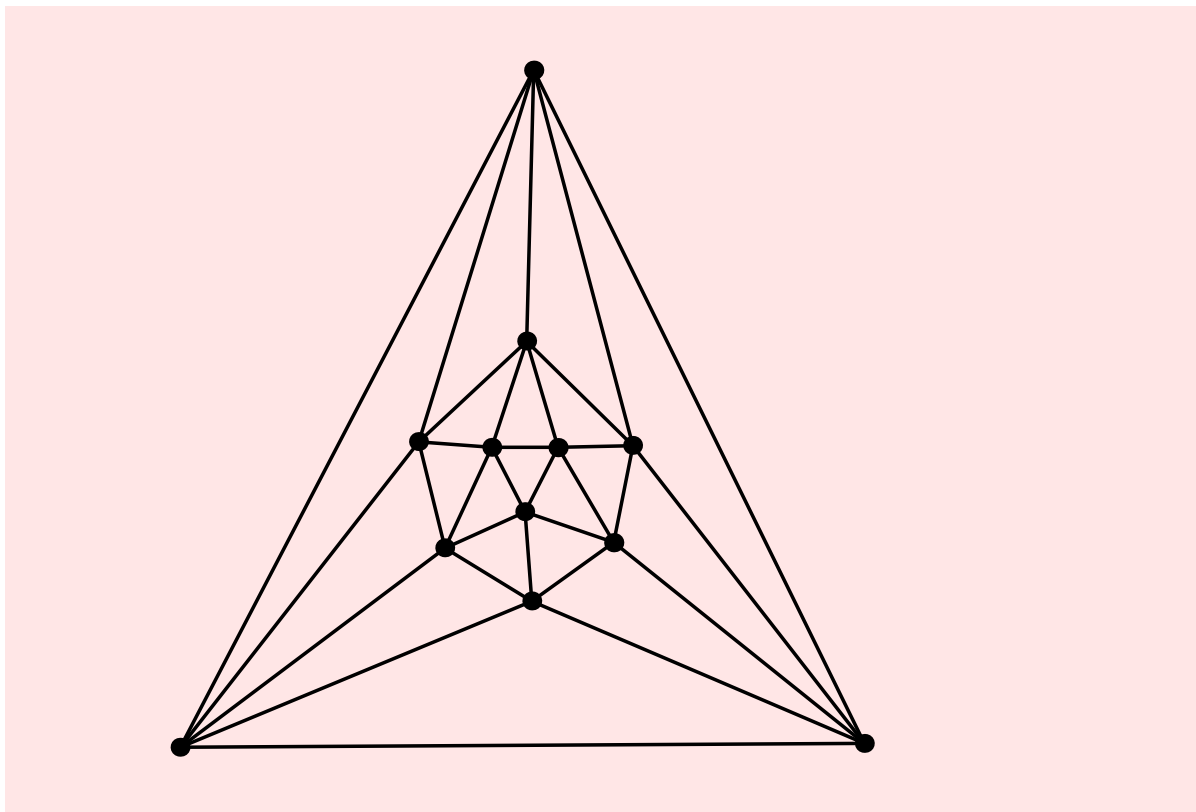


```
Out[29]=
```

```
- Graphics -
```

```
In[30]:=
```

```
ShowGraph[IcosahedralGraph]
```



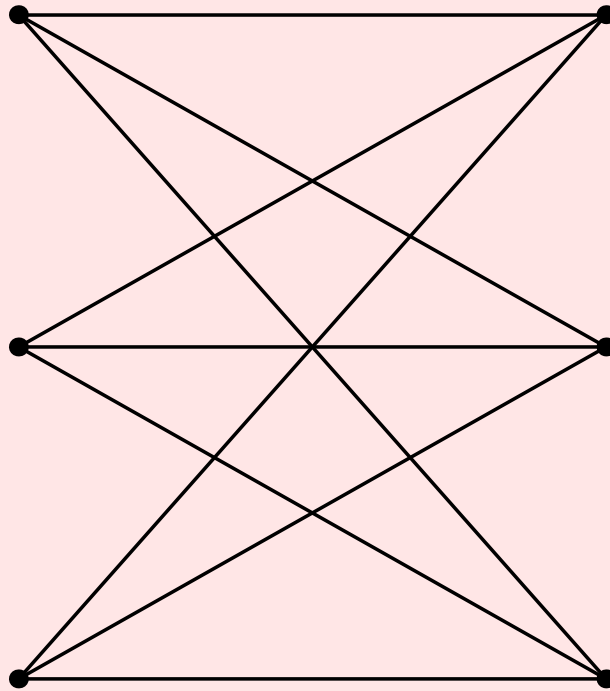
```
Out[30]=
```

```
- Graphics -
```

Divdaļu grafi

In[31]:=

```
ShowGraph[CompleteKPartiteGraph[3,3]]
```

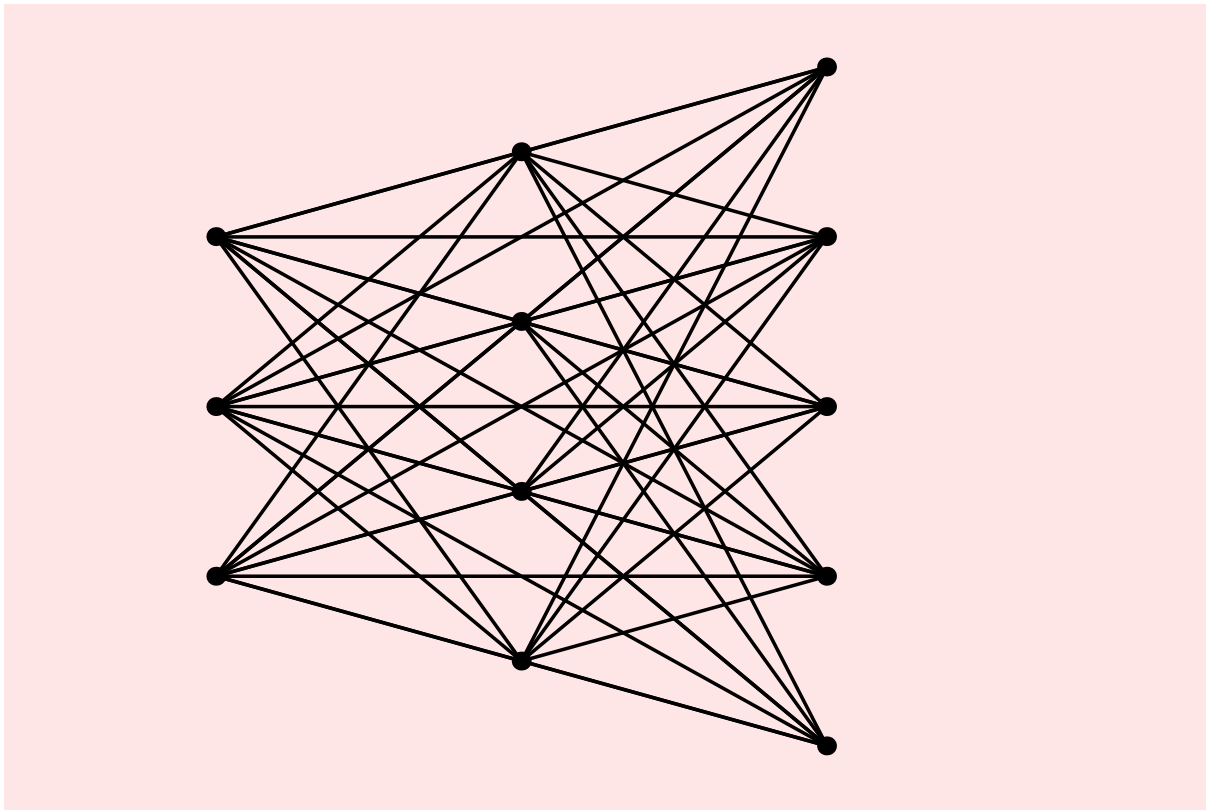


Out[31]=

```
- Graphics -
```

```
In[32]:=
```

```
ShowGraph[CompleteKPartiteGraph[3,4,5]]
```

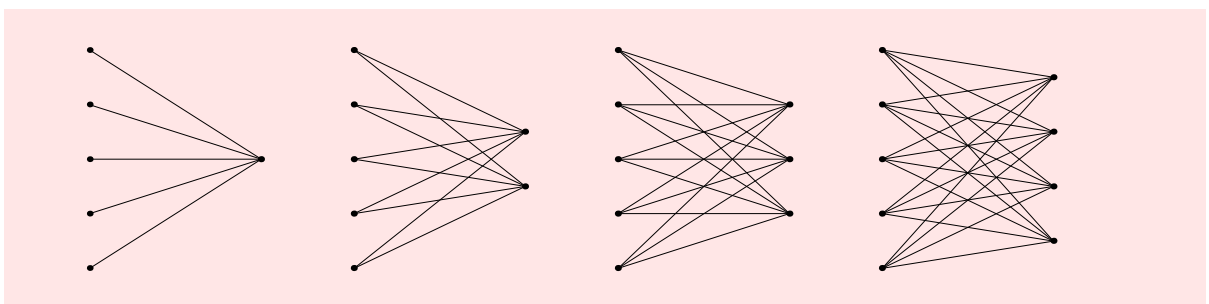


```
Out[32]=
```

```
- Graphics -
```

```
In[33]:=
```

```
ShowGraphArray[Table[CompleteKPartiteGraph[5,n],{n,1,4}]]
```



```
Out[33]=
```

```
- GraphicsArray -
```