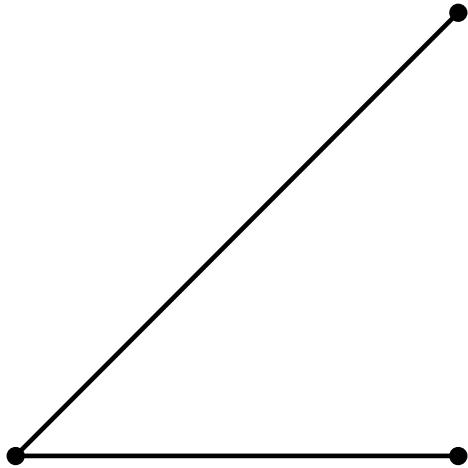


```
In[1]:= Clear["Global`*"];  
PolygonalLine[cnlist_, options___] :=  
  Module[{zpoints = Map[{Re[#], Im[#]} &, cnlist]},  
    graphicsdata = {{Thickness[0.01], Line[zpoints]}, {PointSize[0.04],  
      Map[Point, zpoints]}}; Show[Graphics[graphicsdata, AspectRatio -> 1, ImageSize -> 72 x 3, options]]];
```

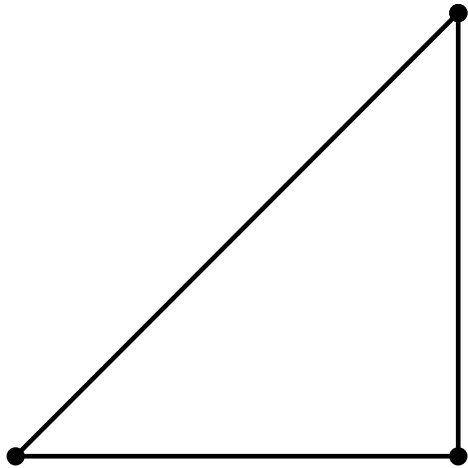
```
In[3]:= cnlist1 = {3 I, -4, 0};  
PolygonalLine[cnlist1]
```

Out[4]=

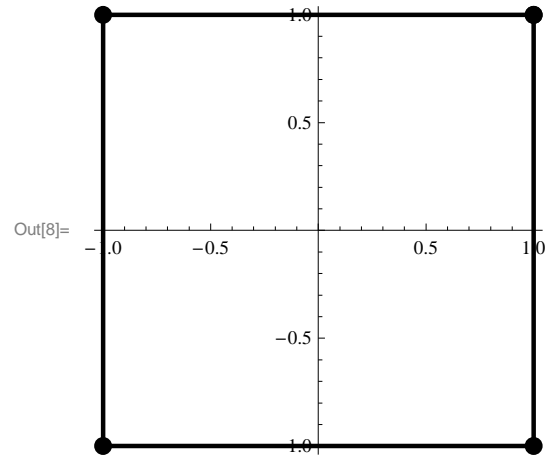


```
In[5]:= cplist2 = {3 I, -4, 0, 3 I};  
PolygonalLine [cplist2]
```

Out[6]=



```
In[7]:= cplist3 = {1 + I, -1 + I, -1 - I, 1 - I, 1 + I};
PolygonalLine [cplist3, Axes → True]
```



```
In[9]:= ContourIntegral [expr_, vbl_, contour_] :=
  Integrate [expr, Prepend [contour, vbl]];
NContourIntegral [expr_, vbl_, contour_] :=
  NIntegrate [expr, Evaluate [Prepend [contour, vbl]]];
```

```
In[11]:= ContourIntegral [(Cos [z])2 Sin [z], z, {1 + I, -1 + I, -1 - I, 1 - I, 1 + I}]
```

Out[11]= $\frac{2}{3} (\cos [1 + i]^3 - \cosh [1 + i]^3) + \frac{2}{3} (-\cos [1 + i]^3 + \cosh [1 + i]^3)$

```
In[12]:= Simplify [%]
```

Out[12]= 0

```
In[13]:= ContourIntegral [Conjugate [z], z, cplist1]
```

Out[13]= $-\frac{9}{2} + 12 i$

```
In[14]:= NContourIntegral [Conjugate [z], z, cplist1]
```

Out[14]= -4.5 + 12. i

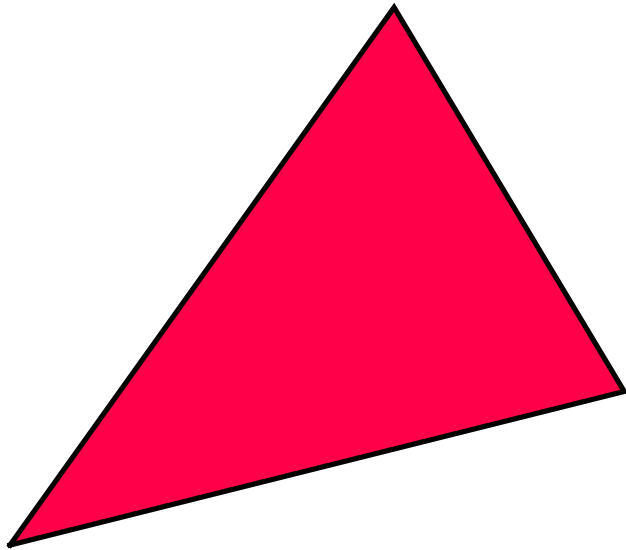
```
In[15]:= ContourIntegral [Conjugate [z], z, cnlist2]
```

```
Out[15]= 12 i
```

```
In[16]:= Triangle [{z1_, z2_, z3_}] := Module[{zpoints = {{Re[z1], Im[z1]},
  {Re[z2], Im[z2]}, {Re[z3], Im[z3]}, {Re[z1], Im[z1]}}},
  {{Hue[RandomReal[]], Polygon[zpoints]}, {Thickness[0.008`], Line[zpoints]}}];
```

```
In[17]:= z1 = -1 / 2 I; z2 = 2; z3 = 5 / 4 + 5 / 4 I;
aa = {z1, z2, z3};
Show[Graphics [Triangle [aa]]]
```

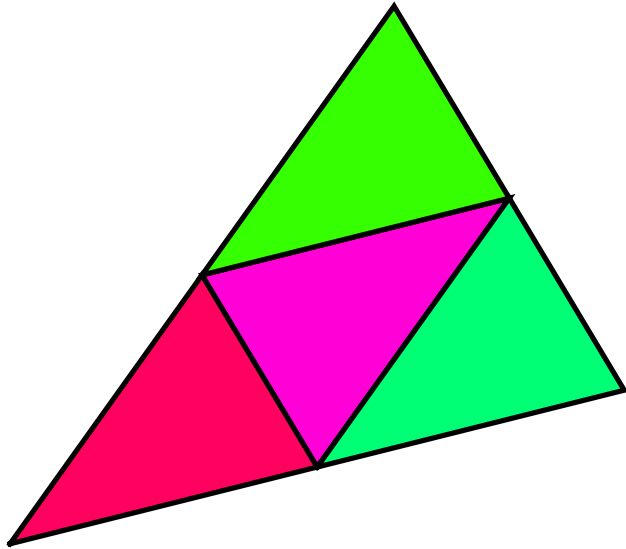
```
Out[19]=
```



```
In[20]:= Subdivide [{z1_, z2_, z3_}] := {{z1, (z1 + z2) / 2, (z1 + z3) / 2},
  {(z1 + z2) / 2, (z2 + z3) / 2, (z1 + z3) / 2},
  {(z1 + z2) / 2, z2, (z2 + z3) / 2}, {(z2 + z3) / 2, z3, (z1 + z3) / 2}};
Subdivide [M_?MatrixQ] := Flatten [Map [Subdivide, M], 1];
showDivision [listdata_] := Show [Graphics [Map [Triangle, listdata]]];
```

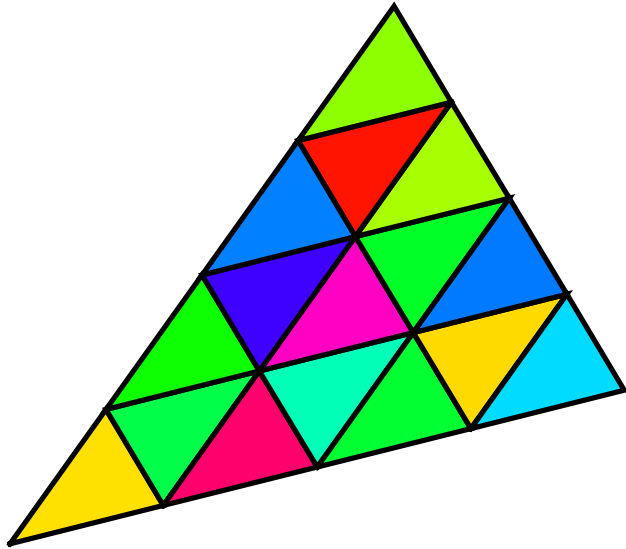
```
In[23]:= bb = Subdivide [aa] ;  
showDivision [bb]
```

Out[24]=



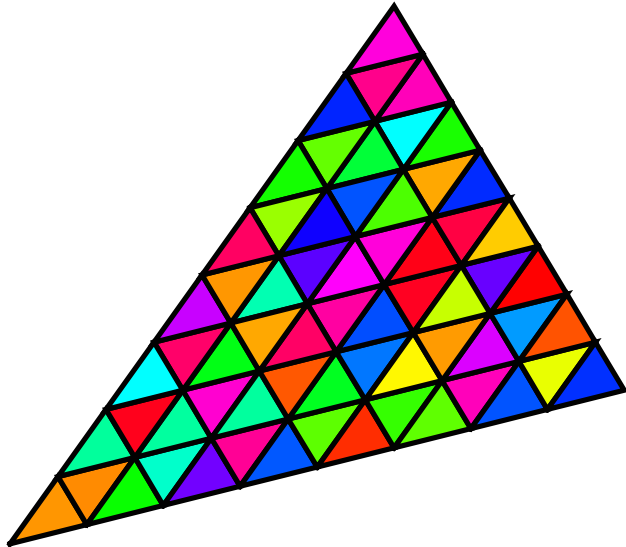
```
In[25]:= cc = Subdivide[bb];  
showDivision[cc]
```

Out[26]=



```
In[27]:= dd = Subdivide [cc] ;  
showDivision [dd]
```

Out[28]=



```
In[29]:= ee = Subdivide[dd];  
showDivision[ee]
```

Out[30]=

