

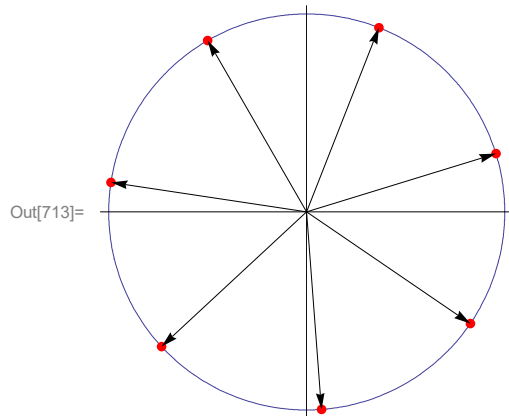
```

In[704]:= z = -1 +  $\sqrt{3}$  i;
n = 7;
{Abs[z], Arg[z]}
Table[ $\frac{\text{Arg}[z] + 2 k \pi}{n}$ , {k, 0, n - 1}];
juur = Prepend[%,  $\sqrt[n]{\text{Abs}[z]}$ ]
rjoon = {juur[[1]] Cos[t], juur[[1]] Sin[t]};
ring = ParametricPlot[rjoon, {t, 0, 2  $\pi$ }] ;
punktid = Table[{PointSize[Medium], Red,
  Point[{juur[[1]] Cos[juur[[k]]], juur[[1]] Sin[juur[[k]]]}]}, {k, 2, n + 1}];
nooled = Table[Arrow[{{0, 0}, {juur[[1]] Cos[juur[[k]]], juur[[1]] Sin[juur[[k]]]}]},
  {k, 2, n + 1}];
Show[ring, Graphics[{punktid, nooled}], Axes  $\rightarrow$  True, Ticks  $\rightarrow$  None]

```

Out[706]= $\left\{2, \frac{2 \pi}{3}\right\}$

Out[708]= $\left\{2^{1/7}, \frac{2 \pi}{21}, \frac{8 \pi}{21}, \frac{2 \pi}{3}, \frac{20 \pi}{21}, \frac{26 \pi}{21}, \frac{32 \pi}{21}, \frac{38 \pi}{21}\right\}$

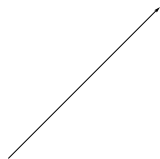


In[47]:= Table[2 k + 1, {k, 0, 5}]

Out[47]= {1, 3, 5, 7, 9, 11}

In[326]:= Graphics[Arrow[{{0, 0}, {2, 2}}]]

Out[326]=



```

z = (3 x + 2 i) (5 - 2 i) + (4 - y i) (-3 + i) - 15 + 2 i
ComplexExpand[z]
{Simplify[Re[ComplexExpand[z]], Element[x, Reals] && Element[y, Reals]] == 0,
 Simplify[Im[ComplexExpand[z]], Element[x, Reals] && Element[y, Reals]] == 0}
Solve[%, {x, y}]
(* Leitud lahendi kontroll *)
z == 0 /. %
(* Ülesande lahendamise Mathematica uuemates versioonides *)
(* Solve[{(3x+2i)(5-2i)+(4-y i)(-3+i)-15+2i==0, {x,y}∈ Reals},{x,y}] *)

```

```
Out[659]= (-15 + 2 i) + (5 - 2 i) (2 i + 3 x) - (3 - i) (4 - i y)
```

```
Out[660]= -23 + 15 x + y + i (16 - 6 x + 3 y)
```

```
Out[661]= {-23 + 15 x + y == 0, 16 - 6 x + 3 y == 0}
```

```
Out[662]= {{x -> 5/3, y -> -2}}
```

```
Out[663]= {True}
```