

P6

6. PRAKTIKA: PLANOKO BESTE ADIERAZPEN BATZUK

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

▼ Proposatutako Ariketa P- 6.1

Table agindua erabilia sortu ondoko puntuak: $(-5,25)$, $(-4,16)$, $(-3,9)$, $(-2,4)$, $(-1,1)$, $(0, 0)$, $(1, 1)$, $(2, 4)$, $(3, 9)$, $(4, 16)$, $(5, 25)$. Irudikatu puntuak eta beraiek elkartuz sortzen duten grafikoa.

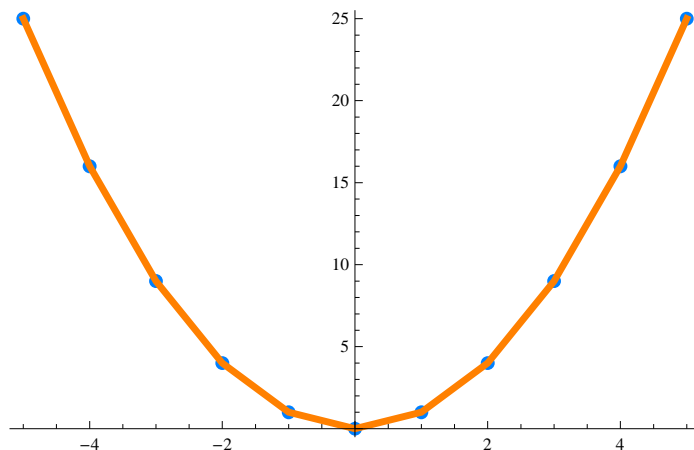
▼ Soluzioa P- 6.1

★ Table agindua erabilia puntuak sortuko ditugu

```
taula = Table[{k, k^2}, {k, -5, 5, 1}]
{{-5, 25}, {-4, 16}, {-3, 9}, {-2, 4},
{-1, 1}, {0, 0}, {1, 1}, {2, 4}, {3, 9}, {4, 16}, {5, 25}}
```

★ Puntuak irudikatuko ditugu eta hauek elkartuz sortzen duten grafikoa ere bai

```
g1 = ListPlot[taula, PlotStyle -> {PointSize[0.02], RGBColor[0, 0.5, 1]};
g2 = ListPlot[taula, Joined -> True, PlotStyle -> {Thickness[0.01], RGBColor[1, 0.5, 0]};
Show[g1, g2]
```



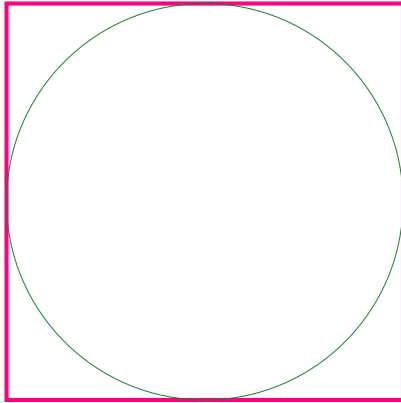
▼ Proposatutako Ariketa P- 6.2

$(3,3)$, $(-3,3)$, $(-3,-3)$ eta $(3,-3)$ erpinak dituen karratua eta bertan inskribatutako zirkunferentzia

irudikatu.

▼ Soluzioa P- 6.2

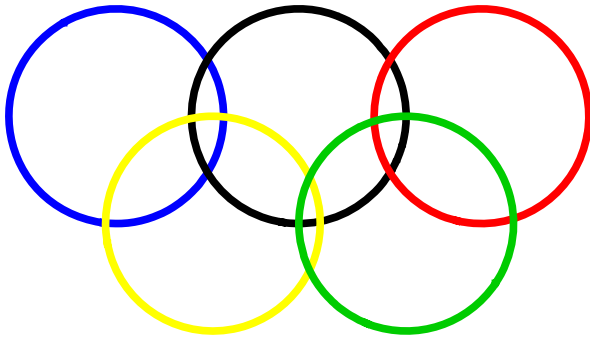
```
puntuak = {{3, 3}, {-3, 3}, {-3, -3}, {3, -3}, {3, 3}};
karratua = ListLinePlot[puntuak, Joined -> True,
  PlotStyle -> {Thickness[0.01], RGBColor[1, 0, 0.5]};
zirkulua = Graphics[{RGBColor[0.1, 0.5, 0.2], Circle[{0, 0}, 3]}];
Show[karratua, zirkulua, Axes -> False, AspectRatio -> Automatic]
```



▼ Proposatutako Ariketa P- 6.3

Idatzi ondorengo grafikoa lortzeko beharrezkoak diren aginduak:

BANDERA OLINPIKOA



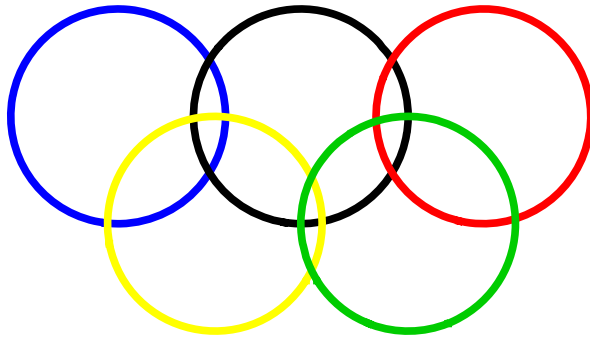
▼ Solución P- 6.3

$$\text{zirkulu}[x_, y_, r_, a_, b_] = (x - a)^2 + (y - b)^2 == r^2$$

$$(-a + x)^2 + (-b + y)^2 == r^2$$

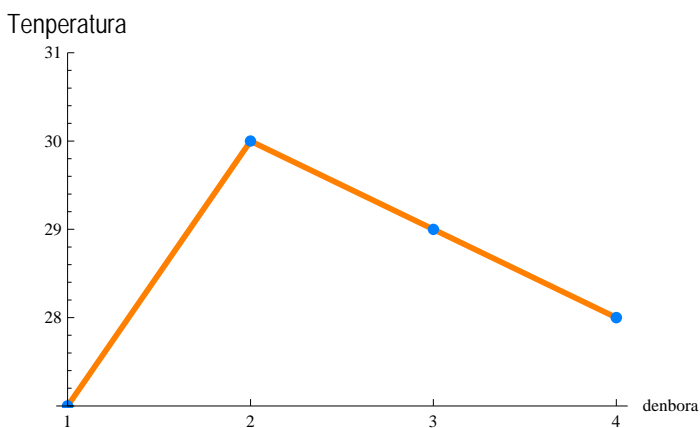
```
ContourPlot[{-1 + (-1.1 + x)2 + (-2 + y)2 == 0,
  -1 + (-2.8 + x)2 + (-2 + y)2 == 0, -1 + (-4.5 + x)2 + (-2 + y)2 == 0,
  -1 + (-2. + x)2 + (-1 + y)2 == 0, -1 + (-3.8 + x)2 + (-1 + y)2 == 0},
{x, 0, 5.7}, {y, -0.1, 3.1}, AspectRatio -> Automatic, Frame -> False,
ContourStyle -> {{Thickness[0.012], Blue}, {Black, Thickness[0.012]},
  {Red, Thickness[0.012]}, {Yellow, Thickness[0.012]}},
  {RGBColor[0, 0.8, 0], Thickness[0.012]}}, PlotLabel -> "BANDERA OLINPIKOA"]
```

BANDERA OLINPIKOA



▼ Proposatutako Ariketa P- 6.4

Idatzi ondorengo grafikoa lortzeko beharrezkoak diren aginduak:

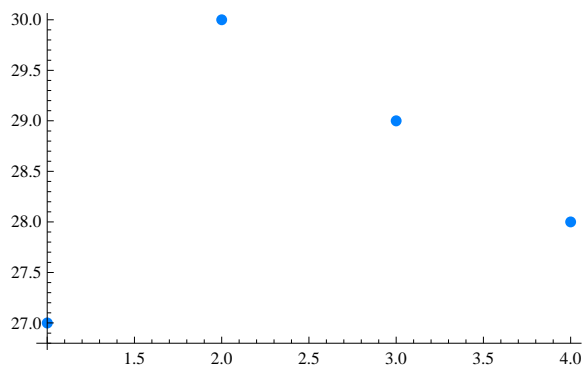


▼ Soluzioa P- 6.4

```
puntuak = {{1, 27}, {2, 30}, {3, 29}, {4, 28}};
```

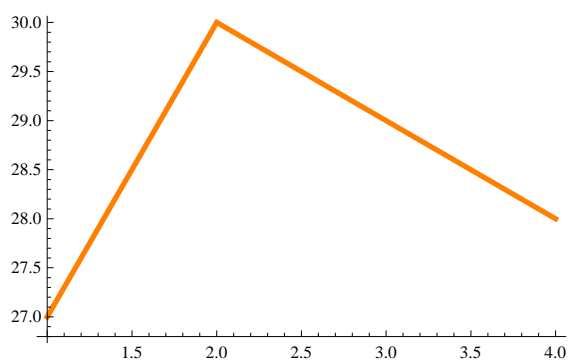
- ★ `ListPlot[tabla, PlotStyle → kolorea, PlotStyle → PointSize [n]]` erabilia, adierazitako kolorea eta lodiera duten puntuak irudikatuko ditugu

```
g1 = ListPlot[puntuak, PlotStyle → {PointSize[0.02], RGBColor[0, 0.5, 1]}]
```



- ★ `Joined → True` eta `PlotStyle → {Thickness[n], RGBColor[1, 0.5, 0]}` aginduak erabiliko ditugu

```
g2 = ListPlot[puntuak, Joined → True, PlotStyle → {Thickness[0.01], RGBColor[1, 0.5, 0]}]
```

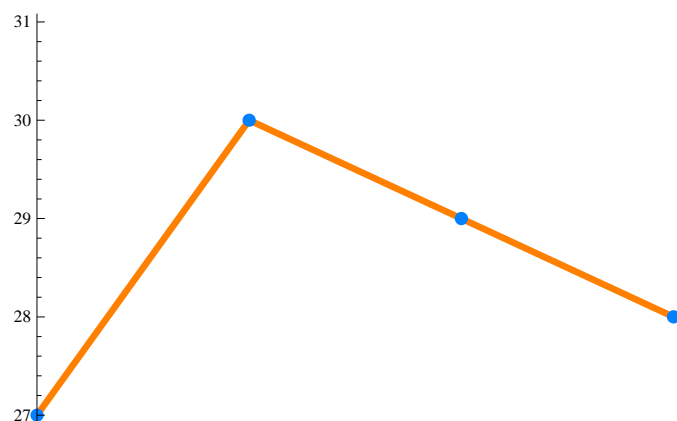


- ★ `AxesLabel → izena`

```
Show[g2, g1, PlotRange → {27, 31},
```

```
AxesLabel → {"denbora", "Temperatura"}, Ticks → {{1, 2, 3, 4}, Automatic}]
```

Temperatura



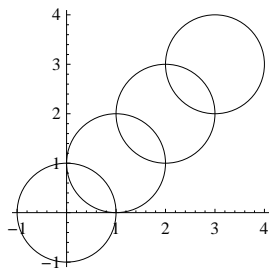
▼ Proposatutako Ariketa P- 6.5

Idatzi ondorengo grafikoa lortzeko beharrezkoak diren aginduak:

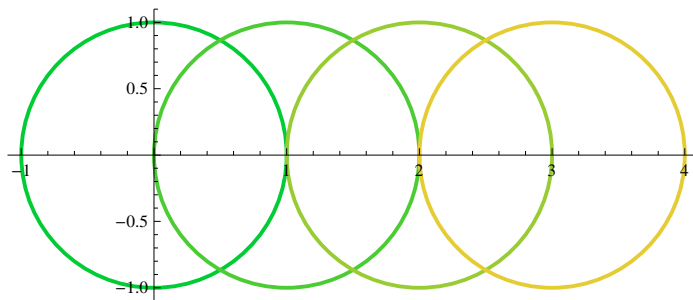


▼ Soluzioa P- 6.5

```
zirkuluak1 = Table[Circle[{a, a}, 1], {a, 0, 3, 1}]
{Circle[{0, 0}, 1], Circle[{1, 1}, 1], Circle[{2, 2}, 1], Circle[{3, 3}, 1]}
Graphics[zirkuluak1, Axes → True]
```

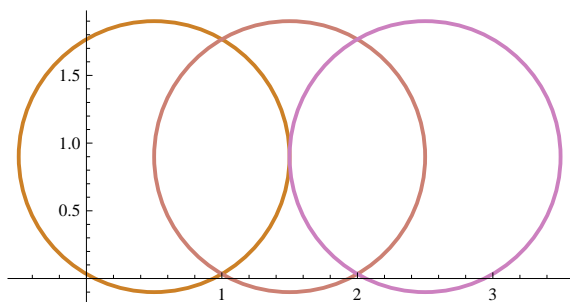


```
zirkuluak2 =
Table[{Thickness[Large], RGBColor[a * 0.3, 0.8, 0.2], Circle[{a, 0}, 1]}, {a, 0, 3, 1}]
{{Thickness[Large], RGBColor[0., 0.8, 0.2], Circle[{0, 0}, 1]},
 {Thickness[Large], RGBColor[0.3, 0.8, 0.2], Circle[{1, 0}, 1]},
 {Thickness[Large], RGBColor[0.6, 0.8, 0.2], Circle[{2, 0}, 1]},
 {Thickness[Large], RGBColor[0.9, 0.8, 0.2], Circle[{3, 0}, 1]}}
g2 = Graphics[zirkuluak2, Axes → True]
```



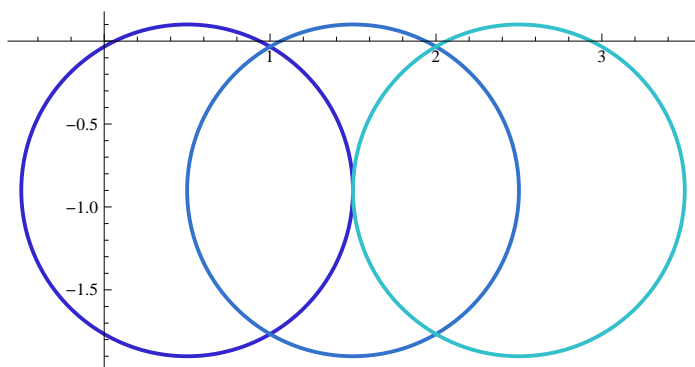
```
zirkuluak3 = Table[
{Thickness[Large], RGBColor[0.8, 0.5, a * 0.3], Circle[{a, 0.9}, 1]}, {a, 0.5, 2.5, 1}]
{{Thickness[Large], RGBColor[0.8, 0.5, 0.15], Circle[{0.5, 0.9}, 1]},
 {Thickness[Large], RGBColor[0.8, 0.5, 0.45], Circle[{1.5, 0.9}, 1]},
 {Thickness[Large], RGBColor[0.8, 0.5, 0.75], Circle[{2.5, 0.9}, 1]}}
```

```
g3 = Graphics[zirkuluak3, Axes → True]
```



```
zirkuluak4 = Table[
  {Thickness[Large], RGBColor[0.2, a * 0.3, 0.8], Circle[{a, -0.9}, 1]}, {a, 0.5, 2.5, 1}]
{{Thickness[Large], RGBColor[0.2, 0.15, 0.8], Circle[{0.5, -0.9}, 1]},
 {Thickness[Large], RGBColor[0.2, 0.45, 0.8], Circle[{1.5, -0.9}, 1]},
 {Thickness[Large], RGBColor[0.2, 0.75, 0.8], Circle[{2.5, -0.9}, 1]}}
```

```
g4 = Graphics[zirkuluak4, Axes → True]
```



```
Show[g2, g3, g4, Axes → False]
```

