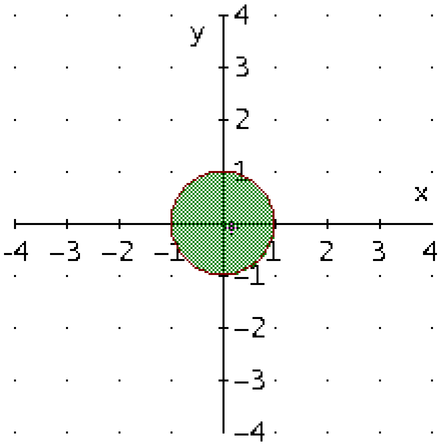
Síkidomok ábrázolása

1. Kör

#1: $\text{egyskor} := \left[x^2 + y^2 < 1,\ x^2 + y^2 = 1\right]$

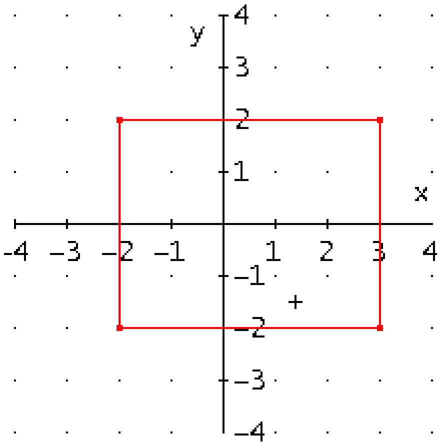


2. Téglalap

#2: RECTANGLE([5, 3], [1, 5])

#3: $\text{teglalap}(\text{szel}, \text{mag}, x, y) := \begin{bmatrix} x & y \\ x + \text{szel} & y \\ x + \text{szel} & y + \text{mag} \\ x & y + \text{mag} \\ x & y \end{bmatrix}$

#4: teglalap(5, 4, −2, −2)



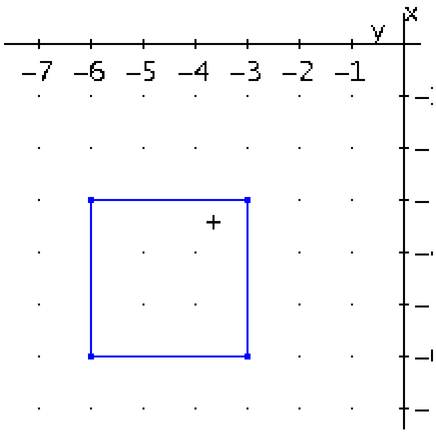
3. Négyzet

#5: RECTANGLE([3, 3], [1, 0])

$\begin{bmatrix} x & y \end{bmatrix}$

#6: $\text{negyzet}(\text{hossz}, x, y) := \begin{bmatrix} x + \text{hossz} & y \\ x + \text{hossz} & y + \text{hossz} \\ x & y + \text{hossz} \\ x & y \end{bmatrix}$

#7: negyzet(3, −6, −6)

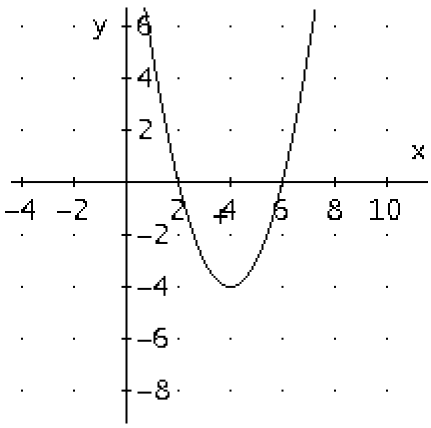


4. Parabola, hiperbola

#8: $y = 3 \cdot x^2 - 5 \cdot x - 4$

#9: $\text{parabola}(p, u, v) := \frac{1}{2 \cdot p} \cdot (x - u)^2 + v$

#10: $\text{parabola}\left(\frac{1}{2}, 4, -4\right)$

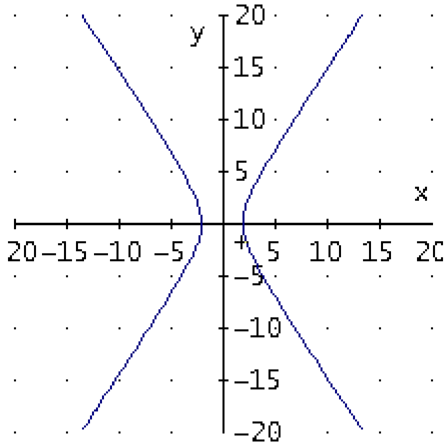


#11: $\frac{1}{}$

x

#12: $hiperbola(a, b) := \frac{x^2}{a^2} - \frac{y^2}{b^2} = 1$

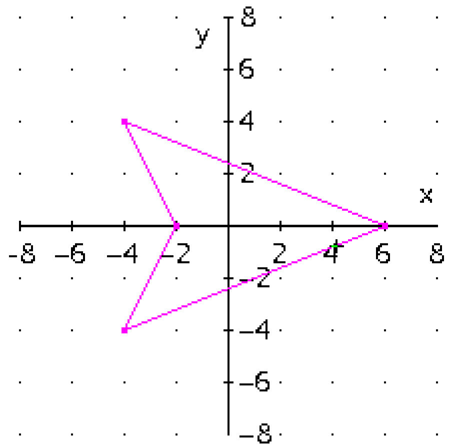
#13: hiperbola(2, 3)



5. Tetszőleges négyszög

#14: $negyszog(a, b, c, d, e, f, g, h) := \begin{bmatrix} a & b \\ c & d \\ e & f \\ g & h \\ a & b \end{bmatrix}$

#15: negyszog(−4, −4, −2, 0, −4, 4, 6, 0)

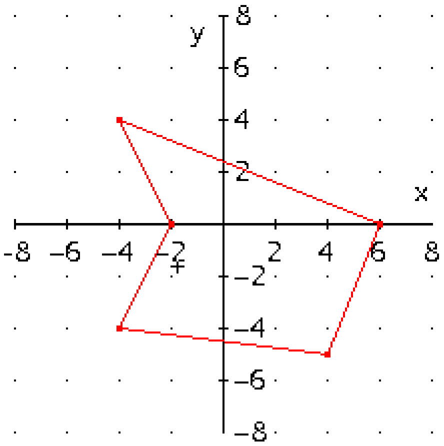


$$\begin{bmatrix} a & b \\ c & d \end{bmatrix}$$

#16: otszog(a, b, c, d, e, f, g, h, i, j) :=

$$\begin{bmatrix} e & f \\ g & h \\ i & j \\ a & b \end{bmatrix}$$

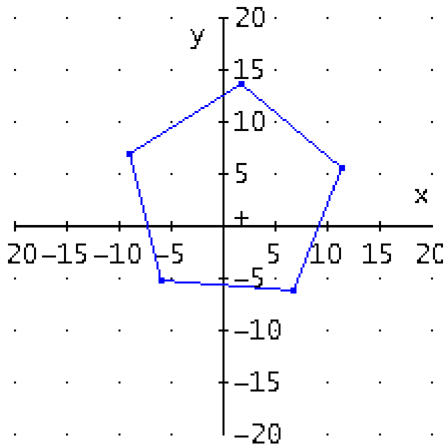
#17: otszog(-4, -4, -2, 0, -4, 4, 6, 0, 4, -5)



6. Tetszőleges szabályos sokszög

```
     sokszog(n, a, b, c, d) :=
       Prog
         α := 360°/n
         m := [[a, b]]
         e := a
         f := b
         p := 1
         Loop
           If p = n + 1
#18:          RETURN m
           k := a - c
           l := b - d
           x := k·COS(α) + l·SIN(α)
           y := l·COS(α) - k·SIN(α)
           a := x + c
           b := y + d
           m := APPEND(m, [[a, b]])
           p :+ 1
```

#19: sokszog(5, -9, 7, 1, 3)



y
x
20
15
10
5
−5
−10
−15
−20
−20
−15
−10
−5
5
10
15
20