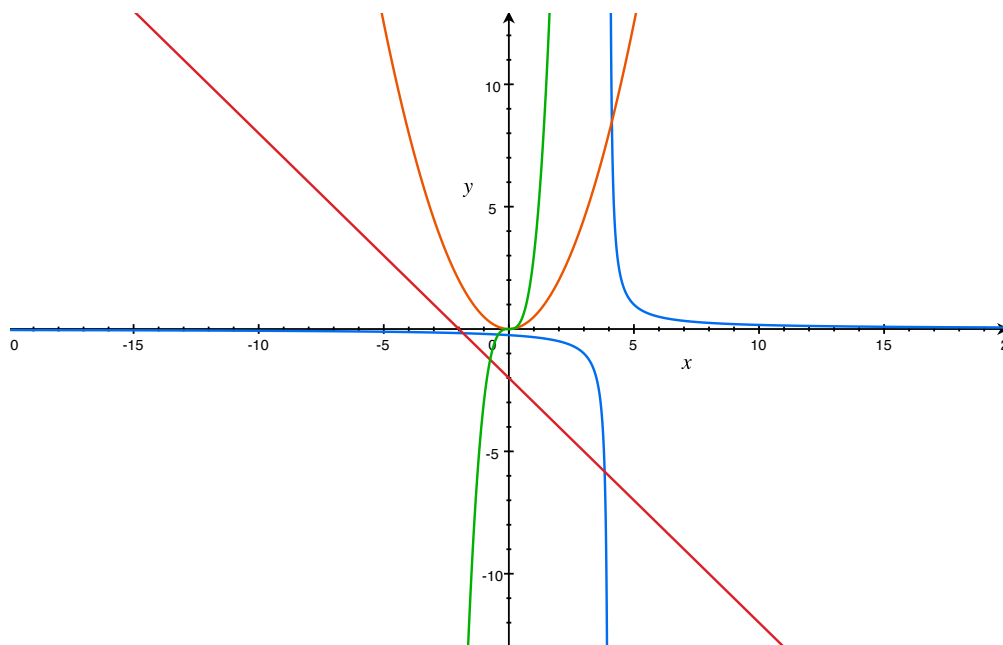


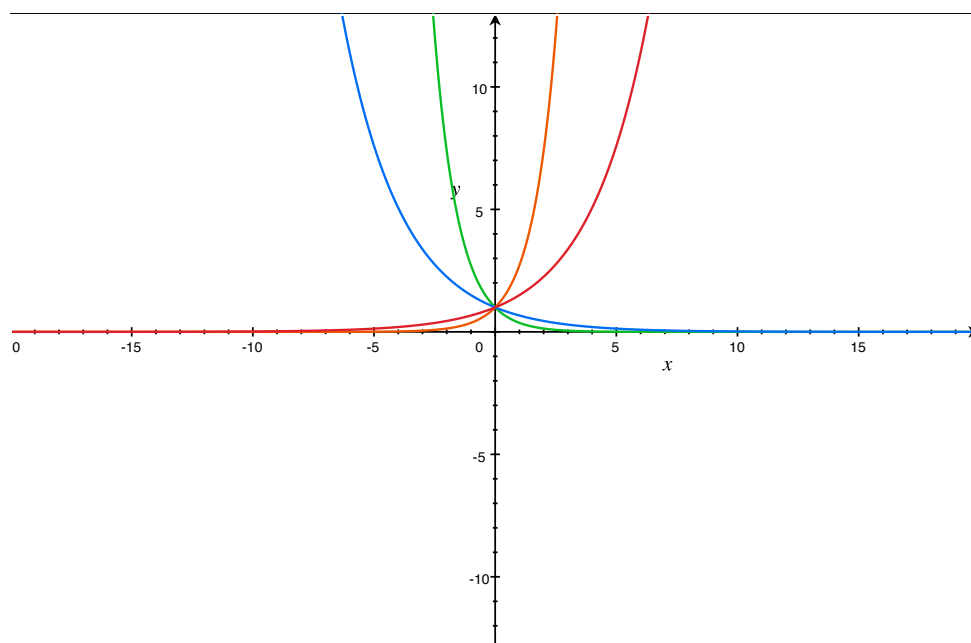
Vybrané grafy v aplikaci Apple Grapher

Příklad 1. Do jednoho grafu vykreslete grafy funkcí:

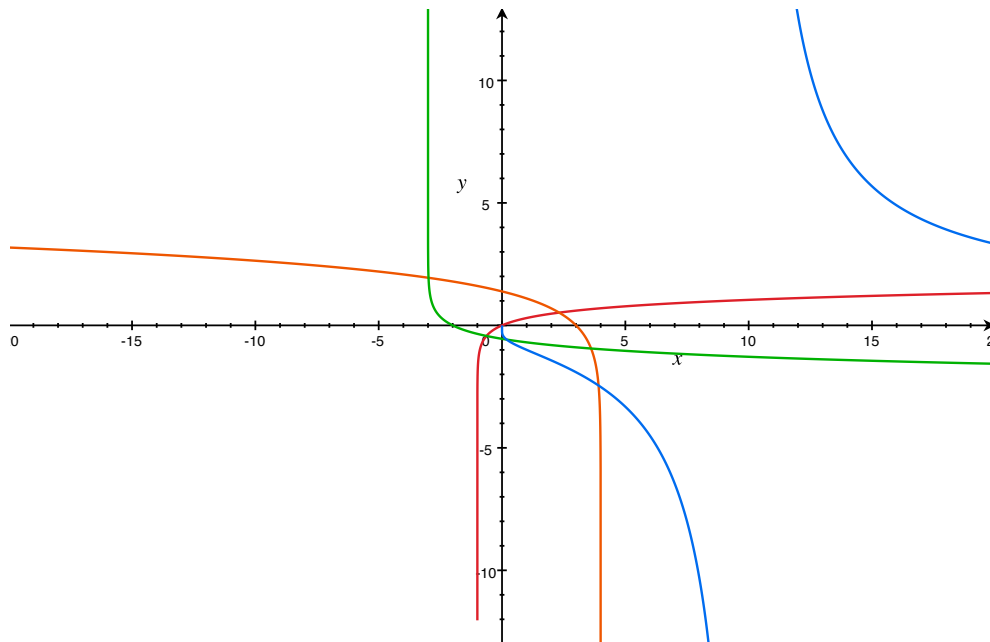
a) $y = -(x + 2)$, $y = \frac{x^2}{2}$, $y = \frac{1}{x-4}$, $y = 3x^3$,



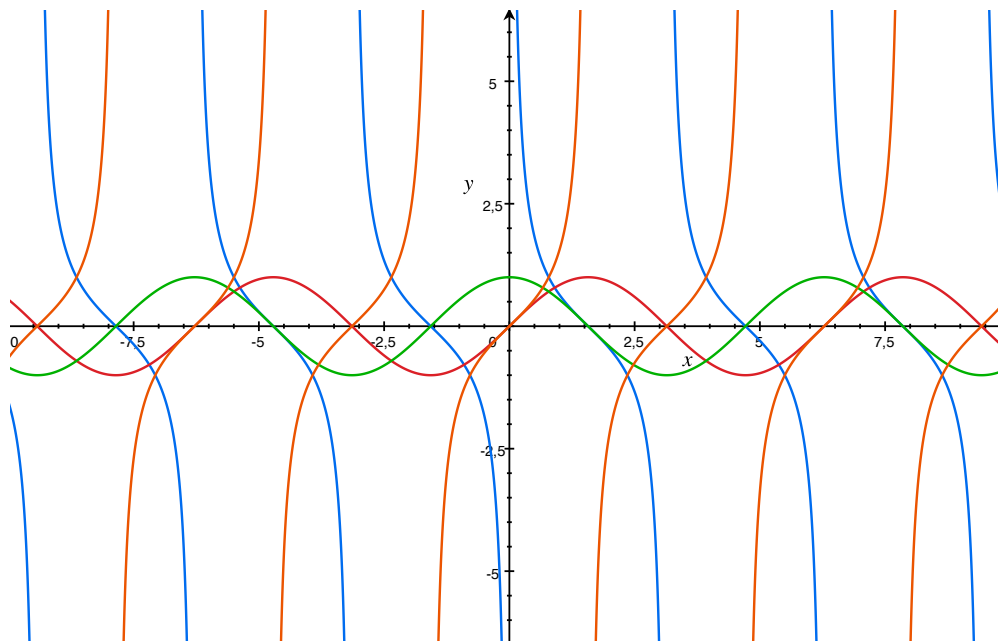
b) $y = \left(\frac{3}{2}\right)^x$, $y = e^x$, $y = \left(\frac{2}{3}\right)^x$, $y = \left(\frac{1}{e}\right)^x$,



c) $y = \log(x + 1)$, $y = \ln(4 - x)$, $y = 0,5 \ln(x + 3)$, $y = (\log x - 1)^{-1}$,



d) $y = \sin x$, $y = \cos x$, $y = \tan x$, $y = \cot x$,



$$e) \frac{x^2}{2} - \frac{y^2}{8} = 1,$$

$$x = 8 + 3 \cos t$$

$$y = 8 + 3 \sin t,$$

kde $t \in \langle 0, 2\pi \rangle$

$$x = 12 + 4 \cos t$$

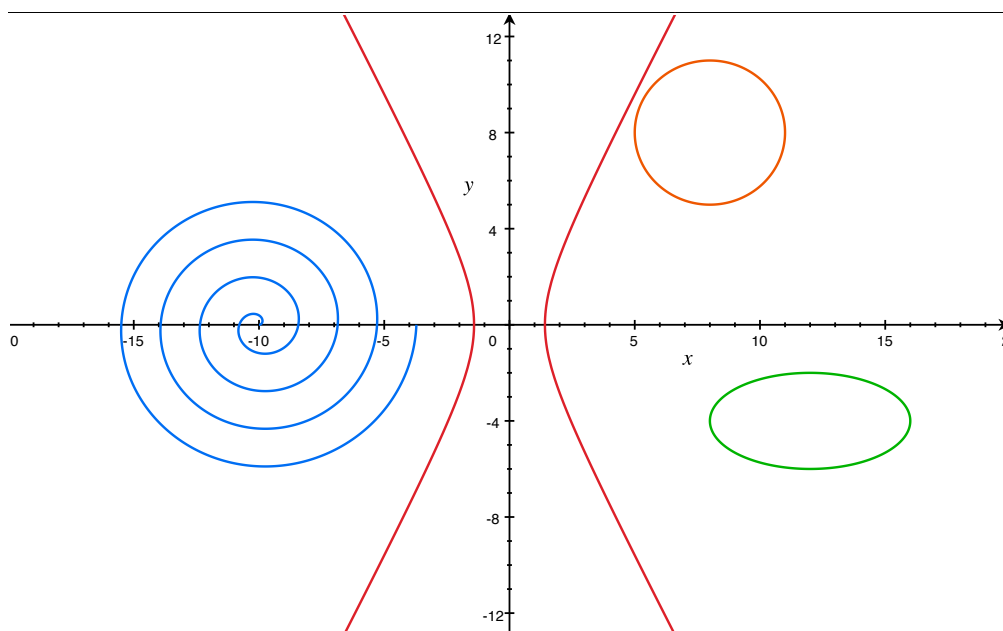
$$y = -4 + 2 \sin t,$$

kde $t \in \langle 0, 2\pi \rangle$

$$x = t \cos 4t - 10$$

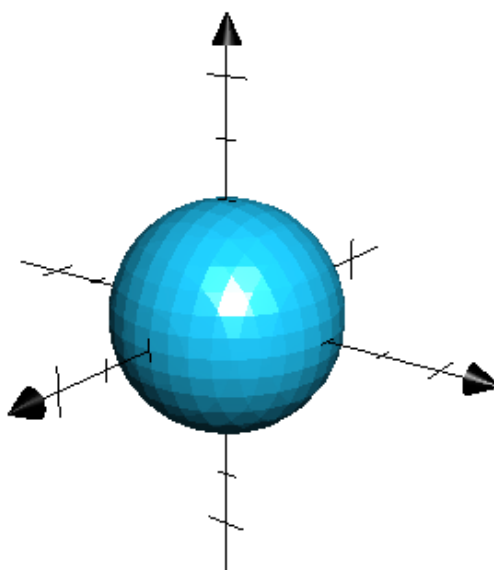
$$y = t \sin 4t$$

kde $t \in \langle 0, 2\pi \rangle$

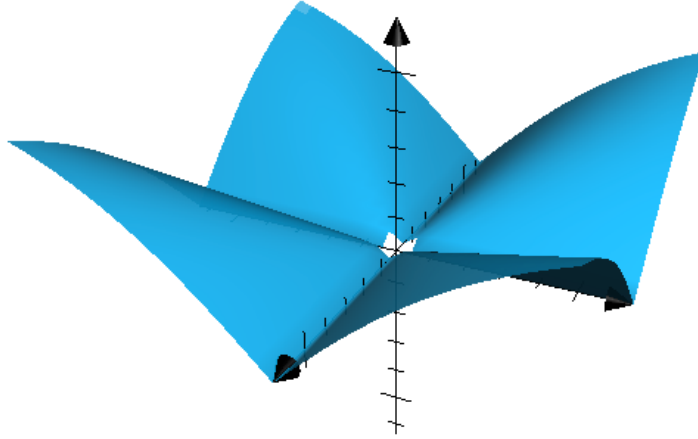


Příklad 2. V \mathbb{R}^2 vykreslete grafy funkcí:

a) $x^2 + y^2 + z^2 = 16,$



b) $z = \sqrt{\frac{x^2 y^2}{x^2 + y^2}}$



c) $z = -\frac{3}{4} \ln\left(\frac{1}{x^2 y^2}\right)$

