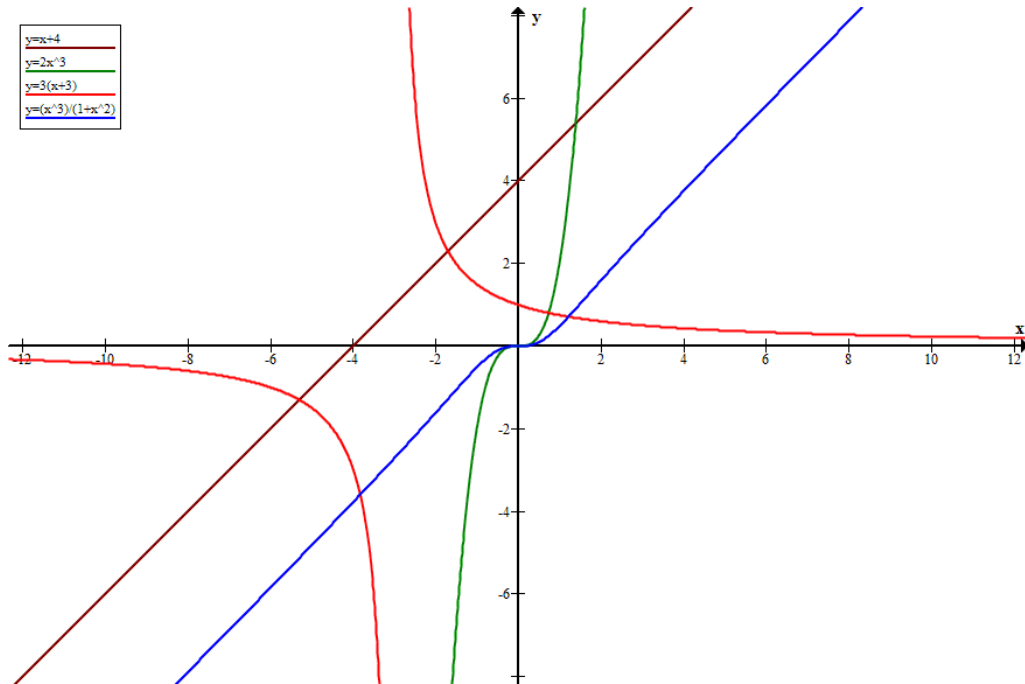


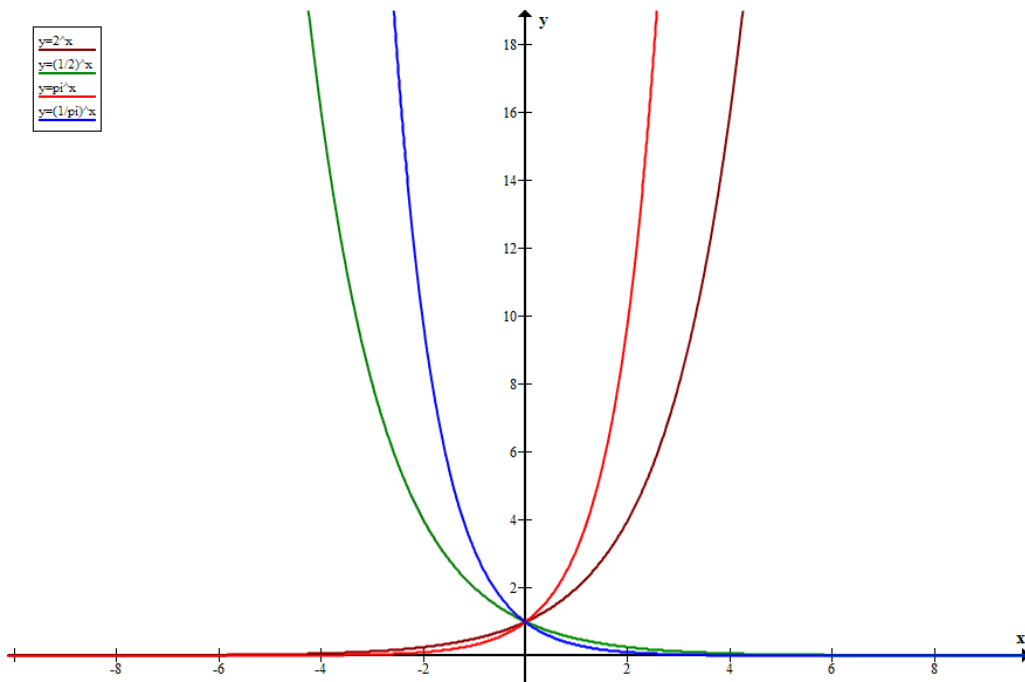
# Vybrané grafy v aplikaci Graph

**Příklad 1.** Do jednoho grafu vykreslete grafy funkcí:

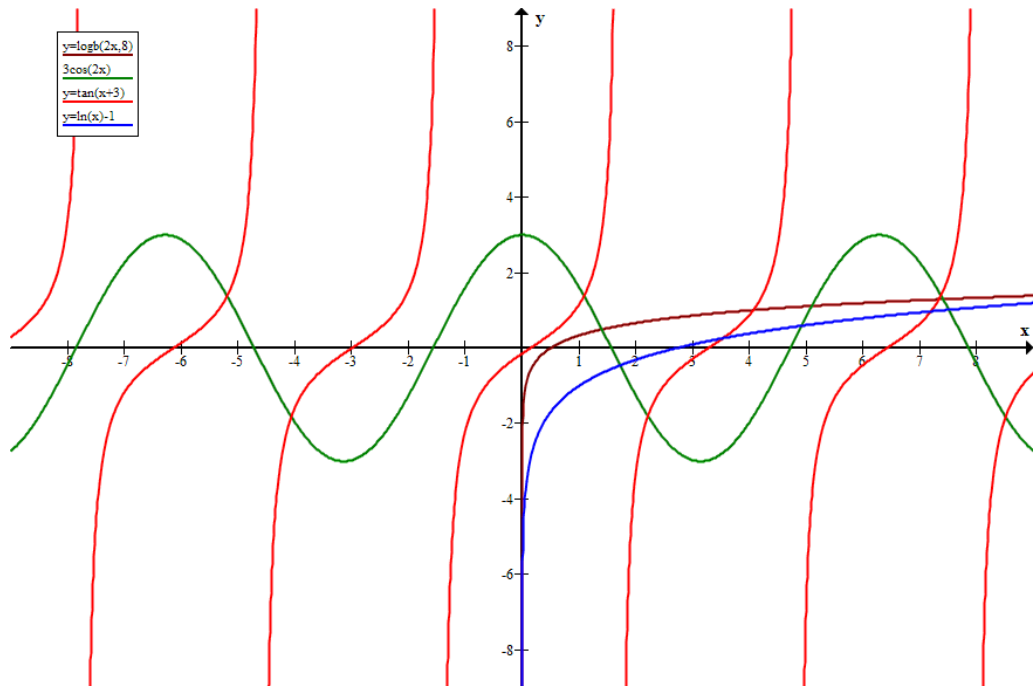
a)  $y = x + 4$ ,  $y = 2x^3$ ,  $y = \frac{3}{x+3}$ ,  $y = \frac{x^3}{1+x^2}$ ,



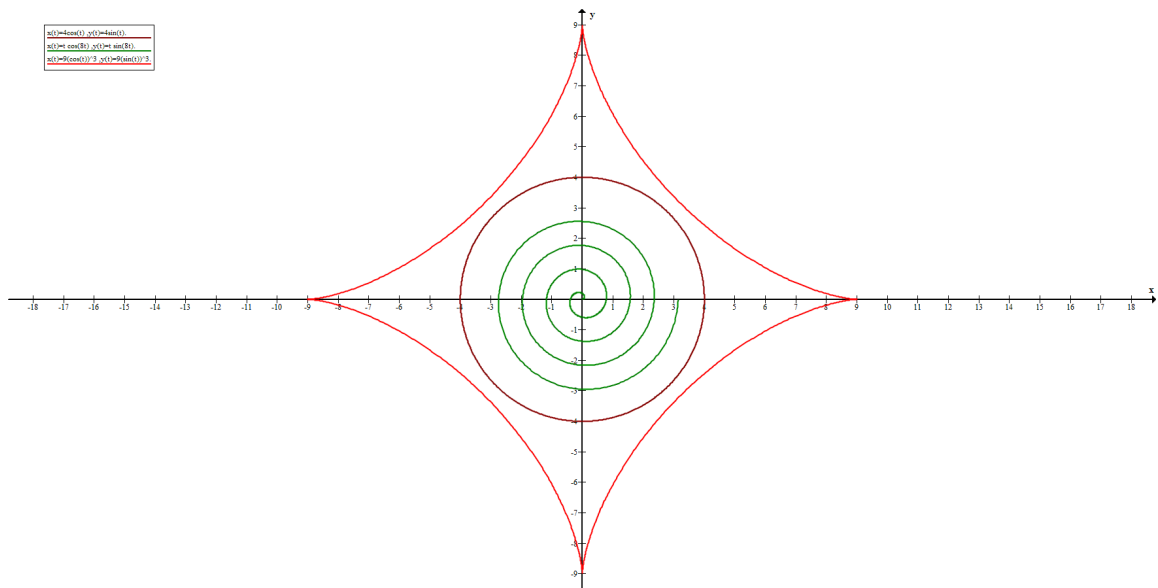
b)  $y = 2^x$ ,  $y = \left(\frac{1}{2}\right)^x$ ,  $y = \pi^x$ ,  $y = \left(\frac{1}{\pi}\right)^x$ ,



c)  $y = \log_8 2x$ ,  $y = 3\cos 2x$ ,  $y = \tan(x + 3)$ ,  $y = \ln x - 1$ ,

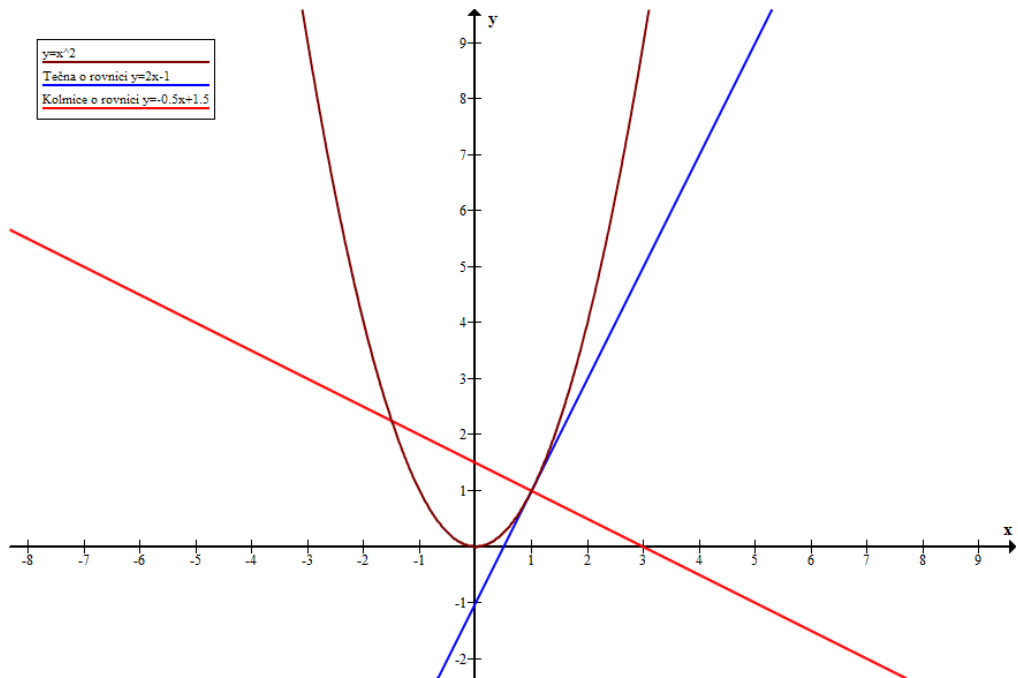


d)  $x = 4 \cos t$ ,  $y = 4 \sin t$  ,  $x = t \cos 8t$ ,  $y = t \sin 8t$  ,  $x = 9 \cos^3 t$ ,  $y = 9 \sin^3 t$  .  
 kde  $t \in \langle 0, 2\pi \rangle$  , kde  $t \in \langle 0, \pi \rangle$  , kde  $t \in \langle 0, 2\pi \rangle$

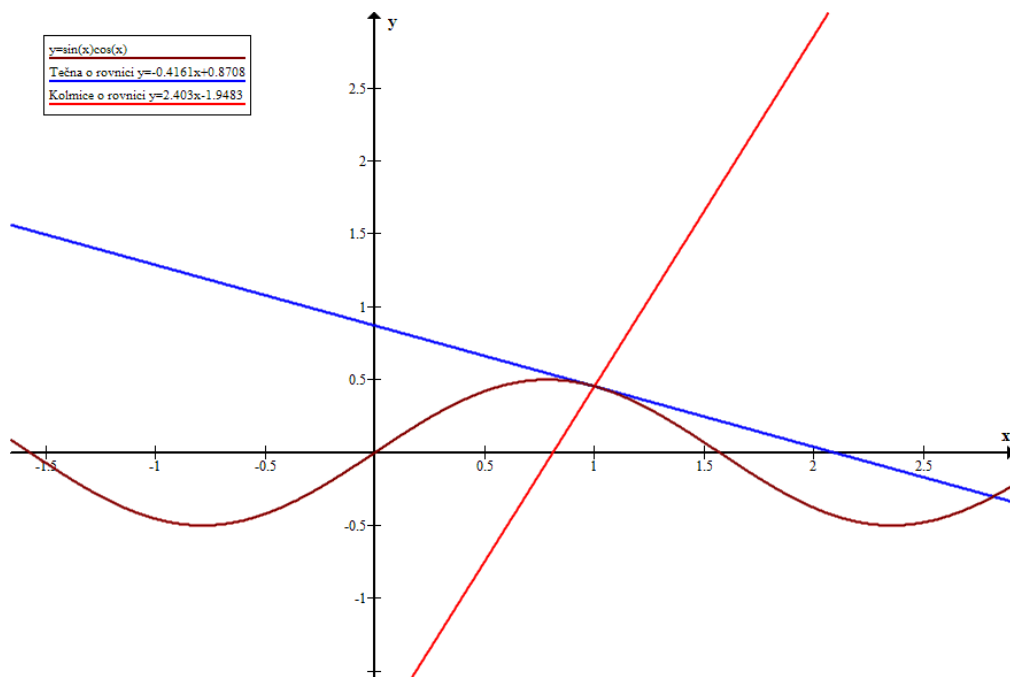


**Příklad 2.** Vykreslete grafy funkcí a také tečny a kolmice k funkcím pro  $x = 1$ .

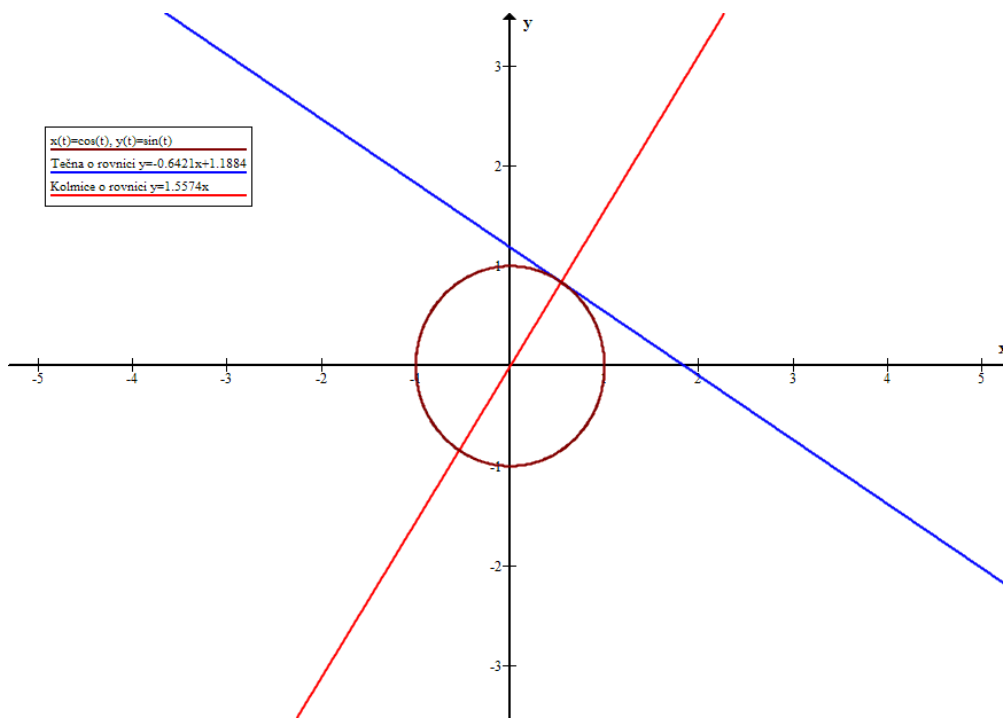
a)  $y = x^2$ ,



b)  $y = \sin x \cos x$ ,

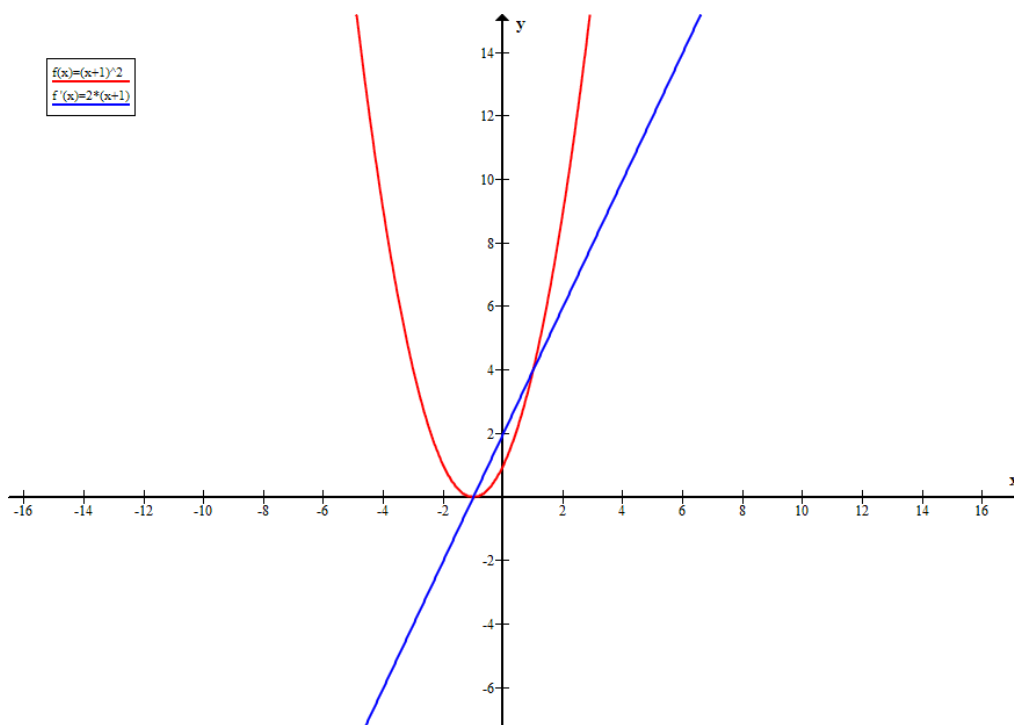


$x = \cos t$   
 c)  $y = \sin t$   
 kde  $t \in \langle 0, 2\pi \rangle$

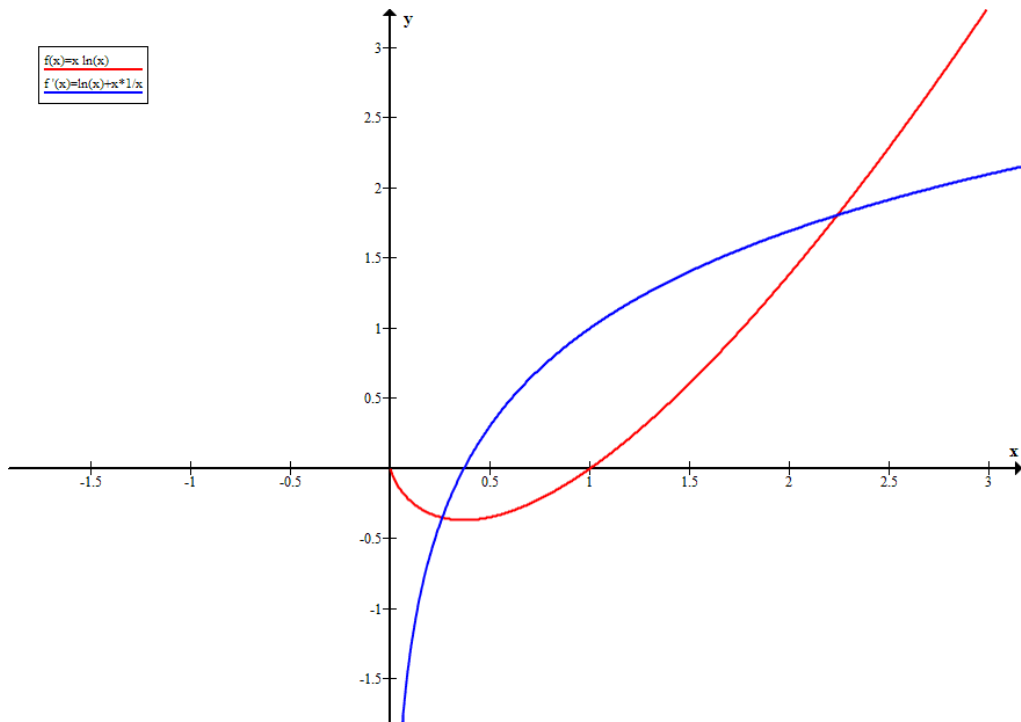


**Příklad 3.** Do jednoho grafu vykreslete grafy funkcí a jejich derivací.

a)  $y = (x + 1)^2$ ,



b)  $y = x \ln x$ ,



c)  $\tan(\ln x)$ .

