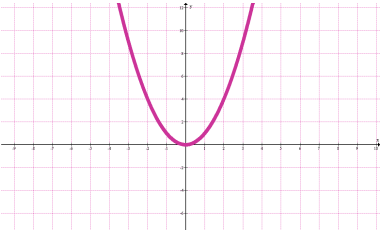
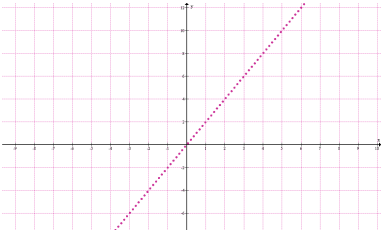
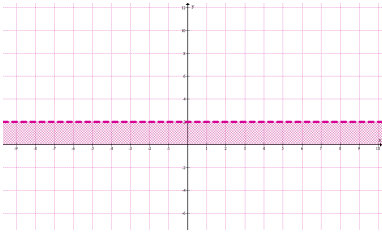
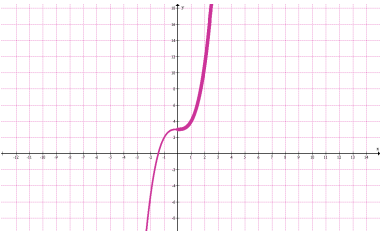
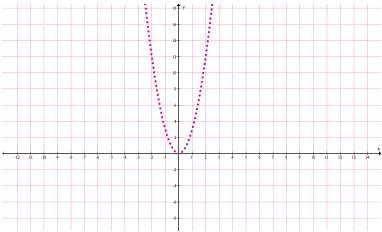
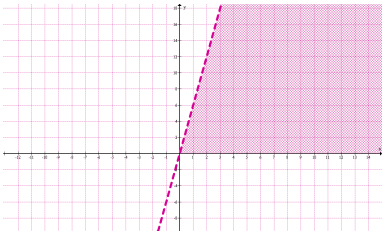
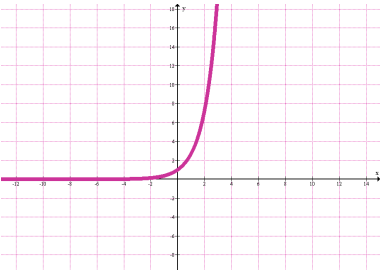
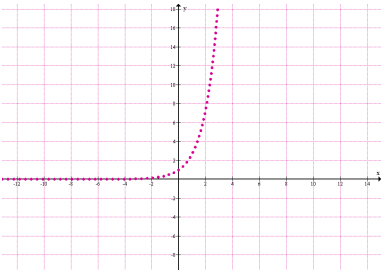
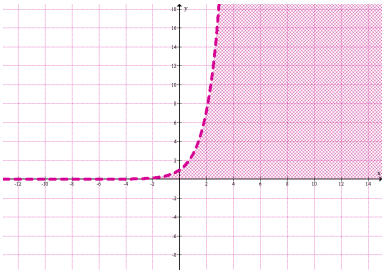
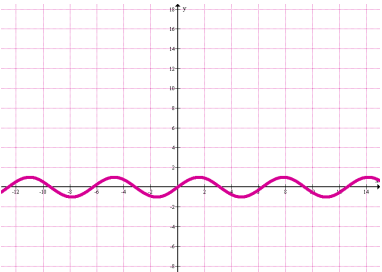
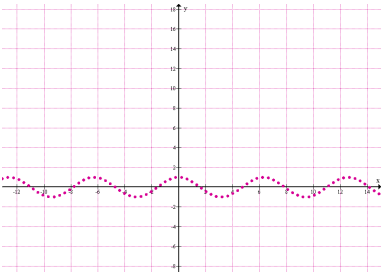
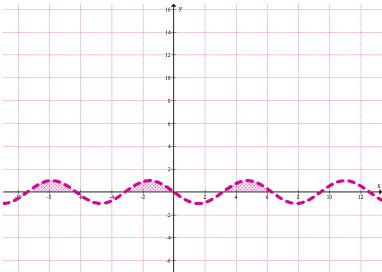


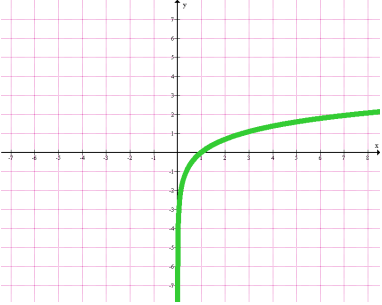
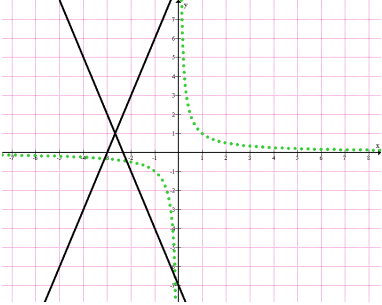
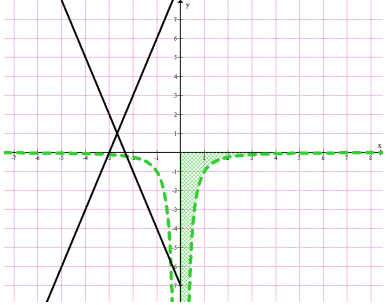
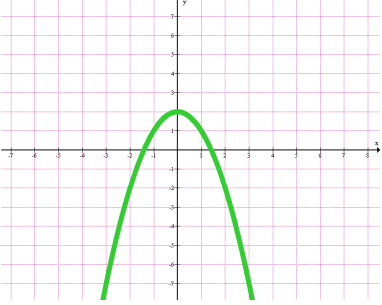
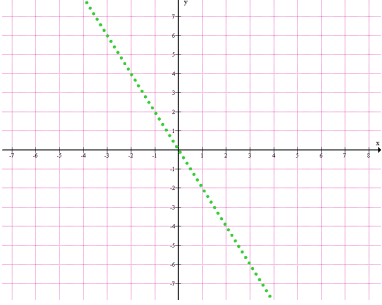
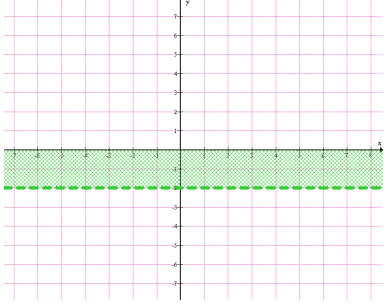
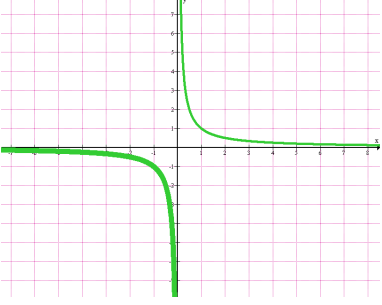
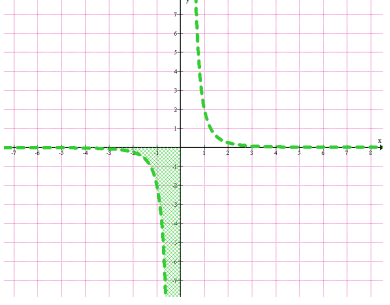
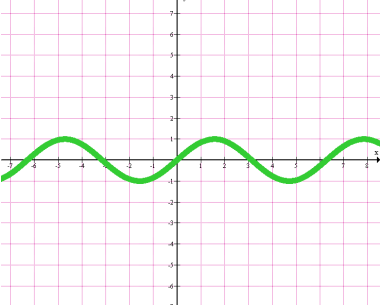
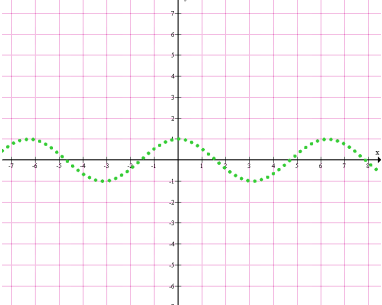
JAK ČTEME Z DRUHÉ DERIVACE

V Tabulce 1 je znázorněno, kde se nachází druhá derivace na intervalu, na kterém je zadaná funkce konvexní – je kladná. A kde se nachází na intervalech, kde je původní funkce konkávní? Viz Tabulka 2 – funkční hodnoty jsou záporné.

Tabulka 1: Intervaly konvexity

Zadaná funkce	⇒	První derivace	⇒	Druhá derivace
$y = x^2$ 	⇒	$y' = 2x$ 	⇒	$y'' = 2$ 
$y = x^3 + 3$ 	⇒	$y' = 3x^2$ 	⇒	$y'' = 6x$ 
$y = e^x$ 	⇒	$y' = e^x$ 	⇒	$y'' = e^x$ 
$y = \sin x$ 	⇒	$y' = \cos x$ 	⇒	$y'' = -\sin x$ 

Zdroj: program Graph

Zadaná funkce	⇒ První derivace	⇒ Druhá derivace
$y = \ln x$ 	$y' = \frac{1}{x}$ 	$y'' = -\frac{1}{x^2}$ 
$y = -x^2 + 2$ 	$y' = -2x$ 	$y'' = -2$ 
$y = \frac{1}{x}$ 	$y' = -\frac{1}{x^2}$ 	$y'' = \frac{2}{x^3}$ 
$y = \sin x$ 	$y' = \cos x$ 	$y'' = -\sin x$ 

Zdroj: program Graph