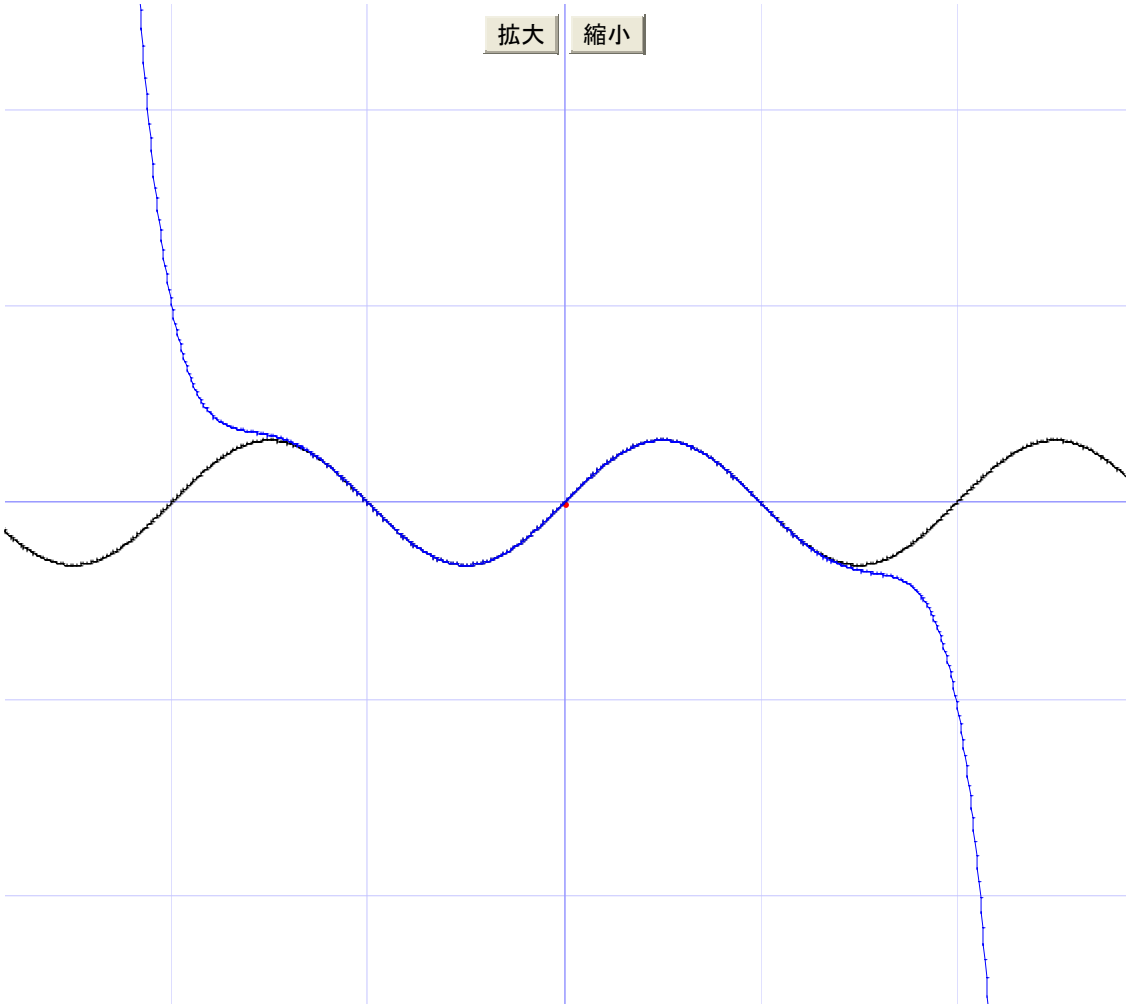


sin x のマクローリン展開

$y = x$

$\sin x = x - x^3/3! + x^5/5! - x^7/7! + x^9/9!$
$\quad + \ldots\ldots + (-1)^m x^{2m+1}/(2m+1)! + \ldots\ldots$

は sin x のマクローリン展開と呼ばれます。

... $n = 2m+1$ のとき

$y = \sin x$ のグラフと
$y = x - x^3/3! + x^5/5! - x^7/7! \quad + \ldots\ldots + (-1)^m x^{2m+1}/(2m+1)!$

のグラフを比べて見ましょう

続きます

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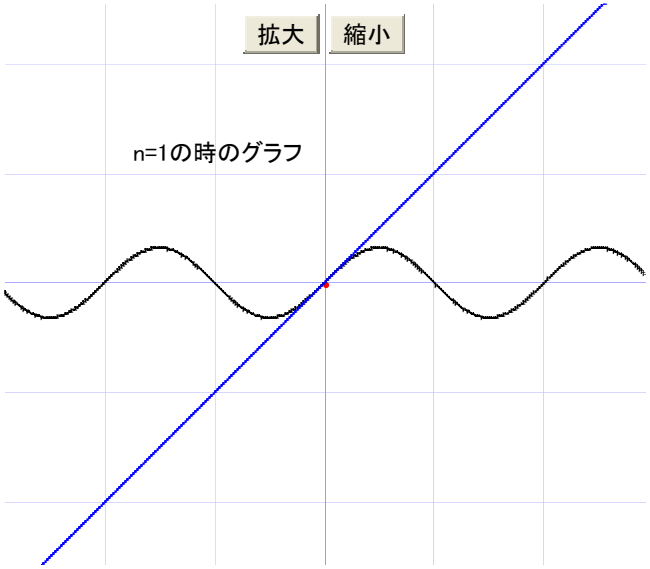
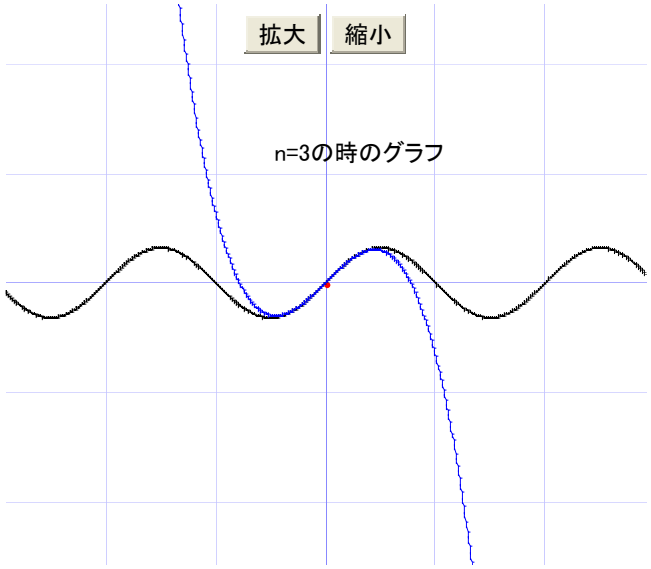
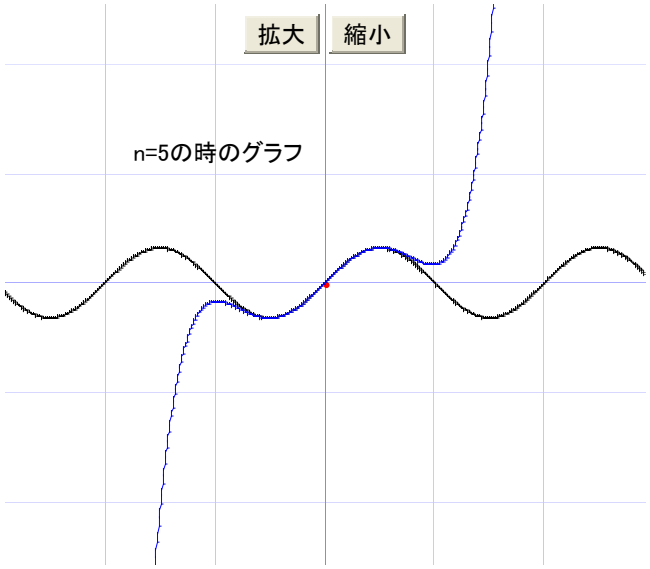
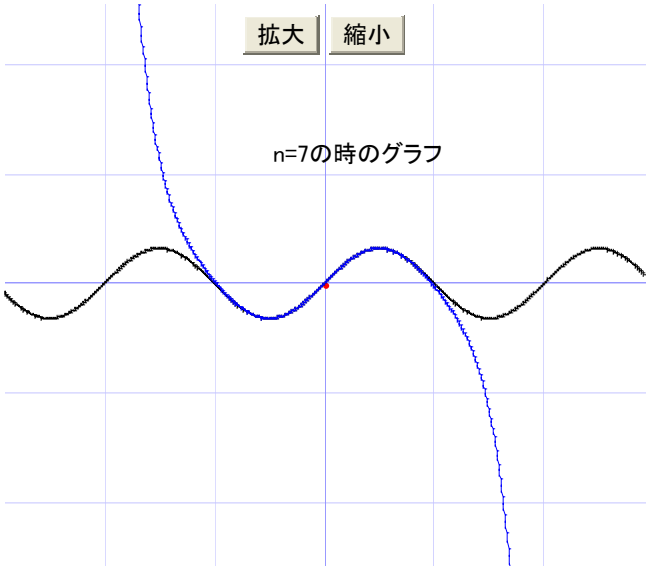
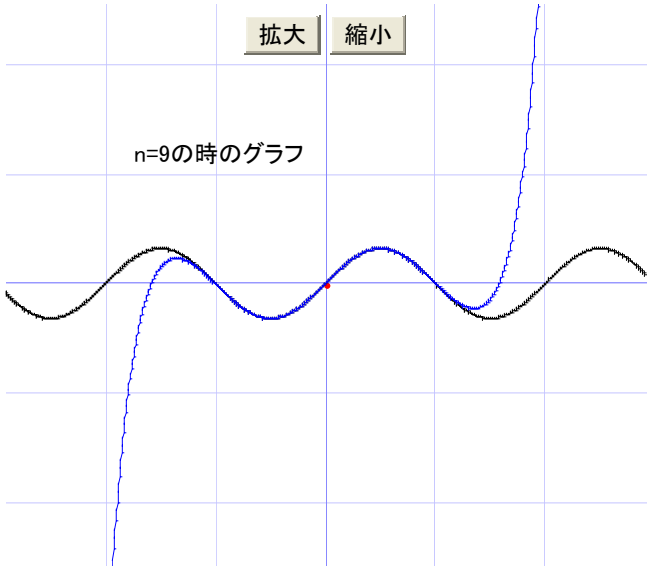
cos x の展開　　$e^x$ の展開

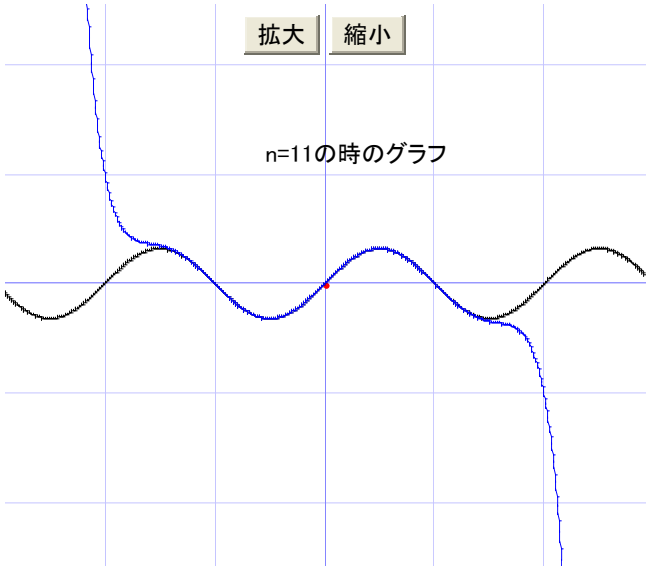

拡大
縮小
n=1の時のグラフ

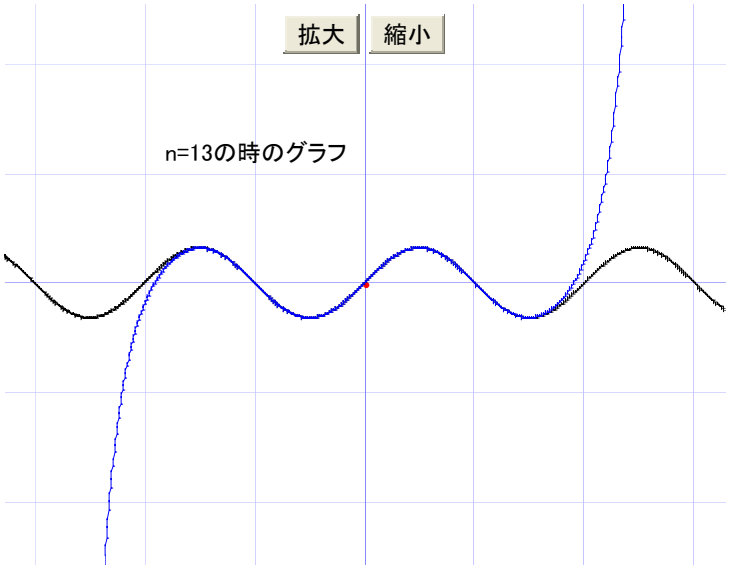

拡大
縮小
n=3の時のグラフ

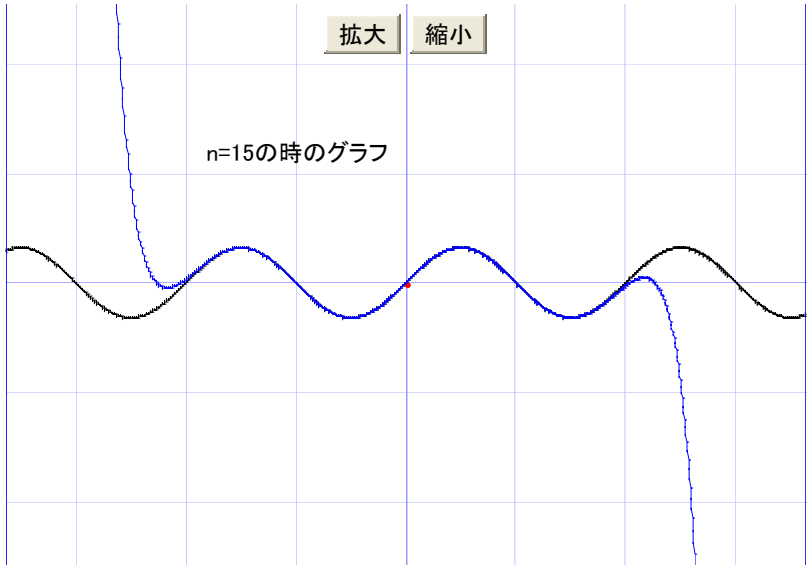

拡大
縮小
n=5の時のグラフ

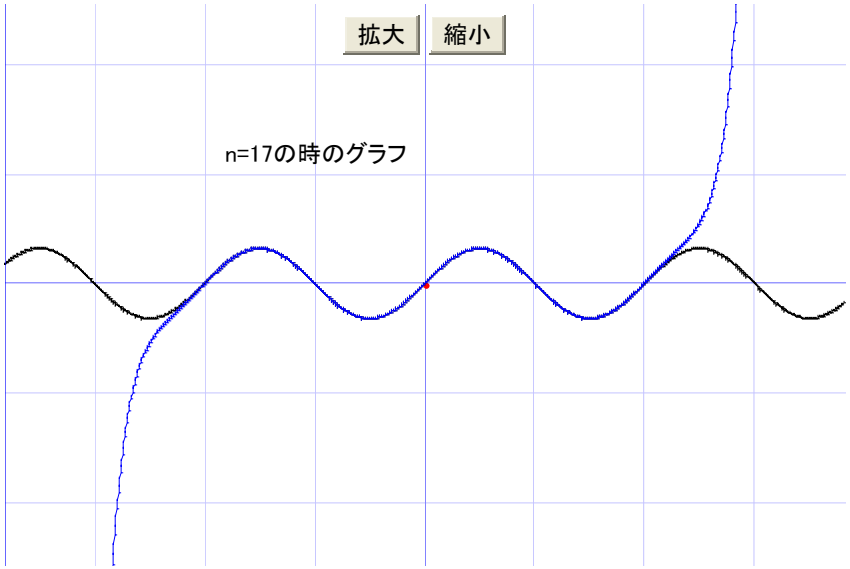

拡大
縮小
n=7の時のグラフ

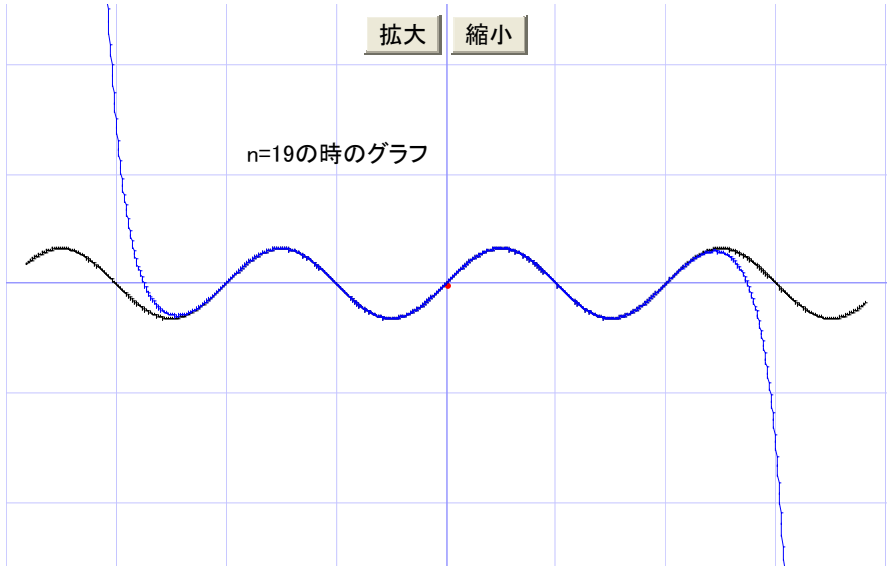

拡大
縮小
n=9の時のグラフ


拡大
縮小
n=11の時のグラフ


拡大
縮小
n=13の時のグラフ


拡大
縮小
n=15の時のグラフ


拡大
縮小
n=17の時のグラフ


拡大
縮小
n=19の時のグラフ