



A sinus függvény és transzformációi

Max. helyei: $x = \frac{\pi}{2} + k2\pi$

értéke: $y = 1$

Min. helyei: $x = \frac{3\pi}{2} + k2\pi$

értéke: $y = -1$

A f_y korlátos

$k = -1; K = 1$

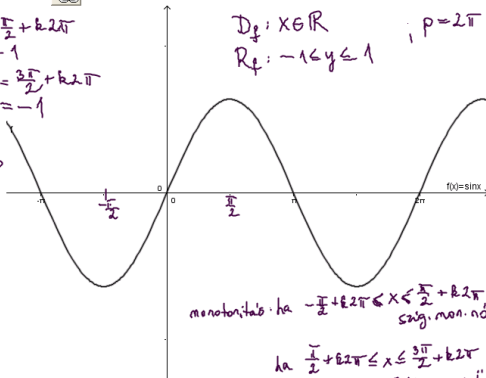
Zérushelyek:

$x = k\pi$

$D_f: x \in \mathbb{R}$

$p = 2\pi$

$R_f: -1 \leq y \leq 1$

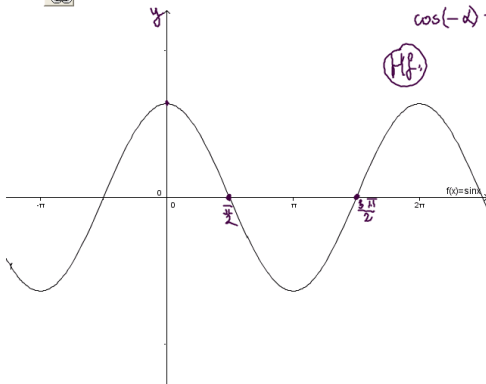


monotonitás: ha $-\frac{\pi}{2} + k2\pi \leq x \leq \frac{\pi}{2} + k2\pi$ ($k \in \mathbb{Z}$), akkor szűg. mon. nö.

ha $\frac{\pi}{2} + k2\pi \leq x \leq \frac{3\pi}{2} + k2\pi$ ($k \in \mathbb{Z}$), akkor szűg. mon. csök.



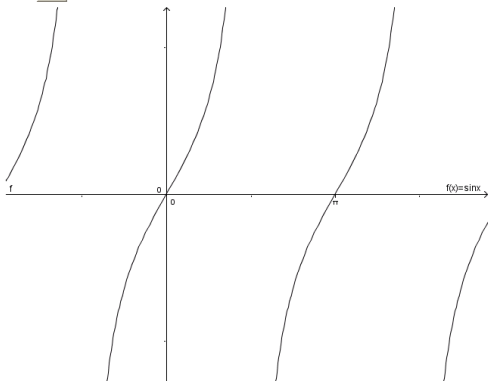
A cosinus függvény és transzformációi



$$\cos(-\alpha) = \cos \alpha$$

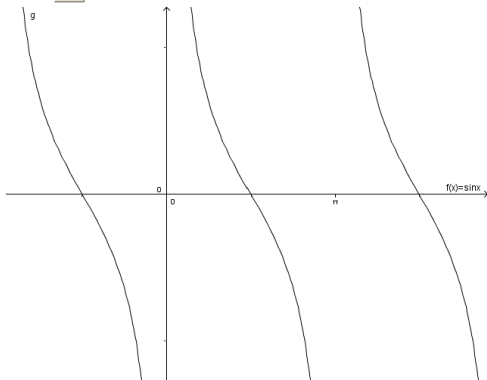


A tangens függvény és transzformációi





A cotangens függvény és transzformációi



†..zxp¶xv|p~pBA?xŠs1>1F@G1>1^, €1Wvs1BC1CAAH1CDKDHKBB



Sinus függvény



Tangens függvény


Mathematics Animated - Mozilla Firefox


Fájl Szerkesztés Nézet Előzmények Könyvjelzők Eszközök Súgó


http://clem.mscd.edu/%7Ealman/MathAnim.html


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
and congruent with the segment HA, then the area of BCJK is the sum of the areas of ABDE and ACFG. [Small format. \(571 K\)](#)


 [The Sine Curve. \(396K\)](#) Shows how a point moving around a unit circle generates the sine function. [Small format. \(339K\)](#)


 [The Tangent Curve. \(717K\)](#) Shows how a point moving around a unit circle generates the tangent function. [Small format. \(499K\)](#)

 [The Conic Sections. \(1785K\)](#) This shows how a plane intersects a cone to form the curves traditionally known as the conic sections. It's based on an idea I found on Preston Nichols' [web site](#). (Nichols' version is an animated GIF, instead of QuickTime, and runs only to about 94K.) [Small format. \(1170K\)](#)

 [An Ellipse. \(439K\)](#) Using the definition to trace out an ellipse. The horizontal line segment shown below the curve consists of copies of the segments that connect the foci with the moving point on the ellipse, showing that the sum of the two lengths is constant. [Small format. \(321K\)](#)

 [A proof of Quetelet & Dandelin \(2,956K\).](#) Sometime around 1825, the Belgian geometers Adolphe Quetelet and Germinal Dandelin devised a simple and elegant construction showing that a plane that is parallel to a generator of the cone intersects that cone in a parabola. (I originally, and erroneously, attributed this proof to Apollonius; I apologize for the error.) Here is an animation of their proof. [Small format. \(986K\)](#)

 [Another proof of Quetelet & Dandelin \(3,572K\).](#) The Quetelet/Dandelin proof that a plane whose angle from the vertical is less than the vertex angle of a cone meets that cone in an ellipse. [Small format. 1,178K\)](#)

 [An Elliptic Reflector. \(371K\)](#) A light pulse is emitted from one focus of an elliptical reflector. [Small format. \(278K\)](#)

Várakozás a következőre: clem.mscd.edu...