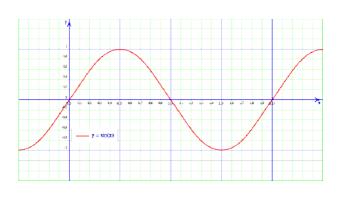
The sine function, sin(x)



2. Image: [-1,1]

1.

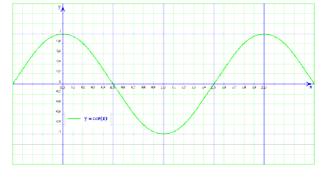
- 3. Period: 2π rad
- Continuity: It is continuous on R 4.

Domain: R

- Increasing 5.
- 6. Decreasing
- on: ... $\cup$ ( $\pi$ 2,3 $\pi$ 2) $\cup$ (5 $\pi$ 2,7 $\pi$ 2) $\cup$ ...

on: ... $\cup$ ( $-\pi 2,\pi 2$ ) $\cup$ ( $3\pi 2,5\pi 2$ ) $\cup$ ...

- 7. Maxima at:  $\{\pi 2+2\pi \cdot k, k \in Z\}$ Minima at:  ${3π2+2π·k, k∈Z}$ 8.
- 9. Parity: Odd, sin == -sin == (-x) 10. Points of intersection with the
- Ox: x=k·π, k∈Z The cosine function, cos(x)



2. Image: [-1,1] 3. Period: 2π rad

1.

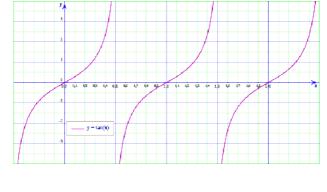
4. Continuity: It is continuous on R

Domain: R

- Increasing on: ... $\cup(-\pi,0)\cup(\pi,2\pi)\cup...$ 5.
- 6. Decreasing on: ... $\cup$ (0, $\pi$ ) $\cup$ (2 $\pi$ ,3 $\pi$ ) $\cup$ ...
- 7. Maxima at:  $\{2\pi \cdot k, k \in \mathbb{Z}\}$
- 8. Minima at:  $\{\pi$ ·(2k+1), k∈Z $\}$
- 9. Parity: Pair cos = cos = (-x) 10. Points of intersection with the
- Ox:  $x=\pi 2+k\cdot \pi$ ,  $k\in \mathbb{Z}$

axis

The tangent function, tan(x)



lt

Domain: R-{(2k+1)·π2,k∈Z}=R-{...,-π2,π

is

continuous

 $2,3\pi 2,...$ 2. Image: R

1.

5.

- Period: π rad 3.
- Continuity: 4. on R- $\{\pi 2+k\pi,k\in Z\}$
- 6. Maxima: No maxima

Increasing on: R

- 7. Minima: No minima
- 8. Parity: Odd tan == tan == (-x) 9.
- Points of intersection with the axis Ox: