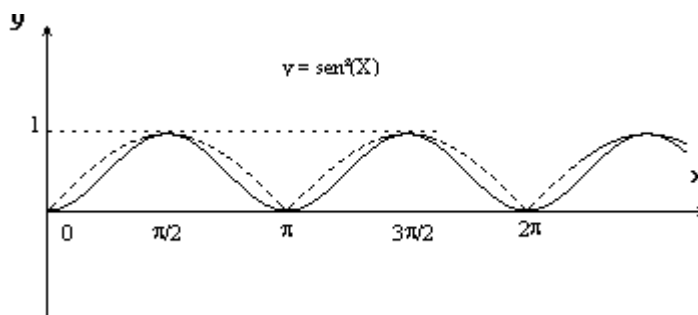


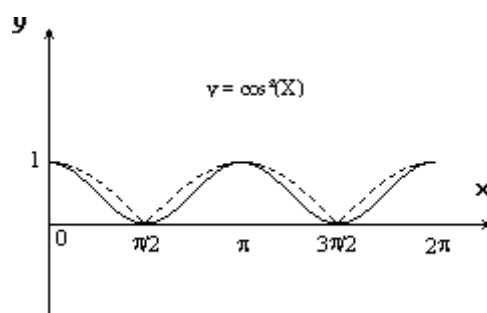
### Grafici significativi

Dopo aver introdotto nei paragrafi precedenti le funzioni trigonometriche elementari e i loro rispettivi grafici, pare particolarmente utile riportare alcuni grafici significativi di funzioni trigonometriche non fondamentali lasciando al lettore il comprendere il metodo utilizzato per realizzarli. Ciò potrà risultare di valido aiuto per ben gestire sia la grafica che la parte analitica degli argomenti successivi.

A) quadrato di  $f(x) \rightarrow [f(x)]^2$

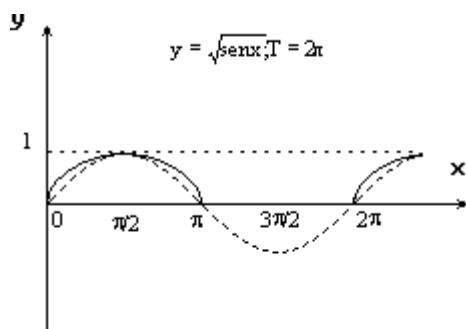


$$\begin{cases} y = \text{sen}^2 x \\ y = \text{cos}^2 x; T = \pi \end{cases}$$



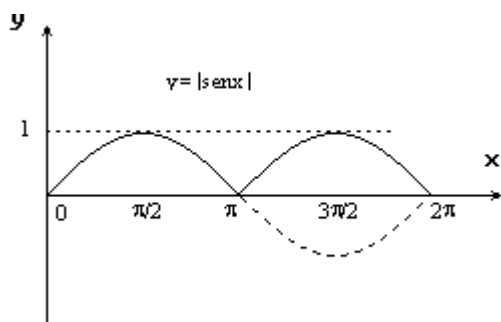
B) Radice di  $f(x) \rightarrow \sqrt{f(x)}$

$$y = \sqrt{\text{sen} x}; T = 2\pi$$



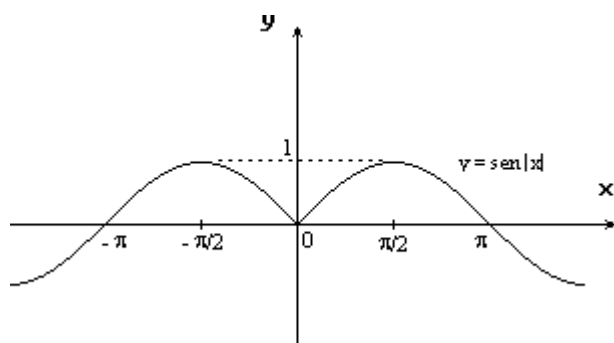
C) Modulo di  $f(x) \rightarrow |f(x)|$

$$y = |\text{sen}x|$$



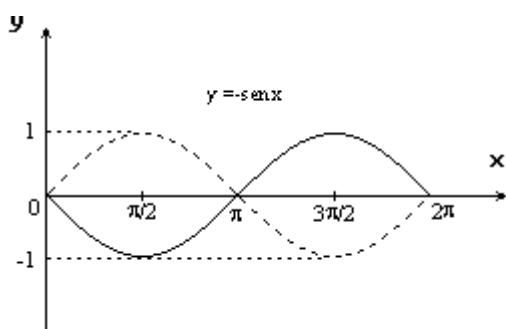
D) Funzione con argomento in modulo  $\rightarrow f(|x|)$

$$y = \text{sen}|x|; T = 2\pi \text{ per } x \geq 0 \vee x \leq 0$$



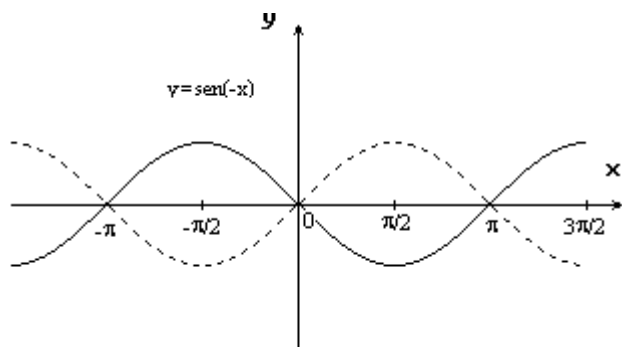
E) Funzione opposta  $\rightarrow -f(x)$

$$y = -\text{sen}x; T = 2\pi$$



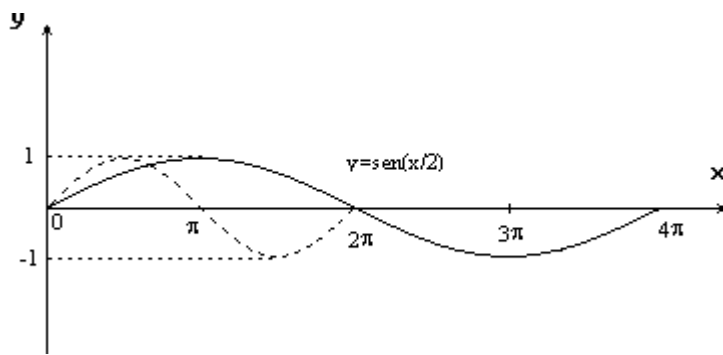
F) Funzione con argomento opposto  $\rightarrow f(-x)$

$$y = \text{sen}(-x) \quad T = 2\pi$$

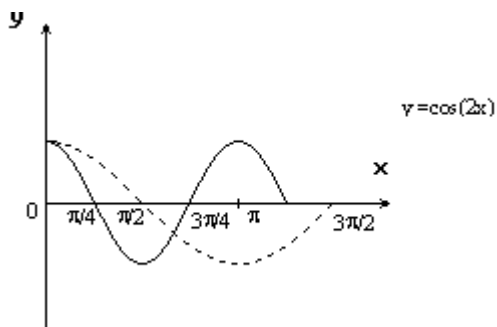


G) La funzione  $kf\left(\frac{x}{H}\right)$

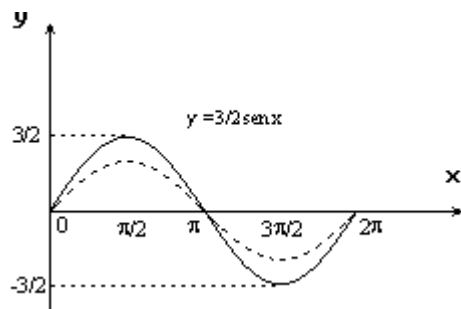
$$y = \text{sen}\left(\frac{x}{2}\right); T = 4\pi$$



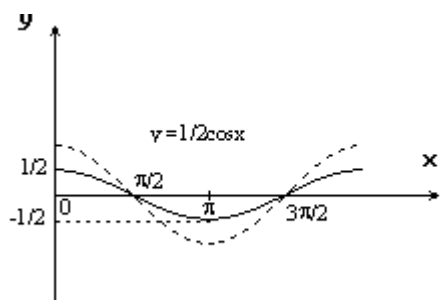
$$y = \cos(2x); T = \pi$$



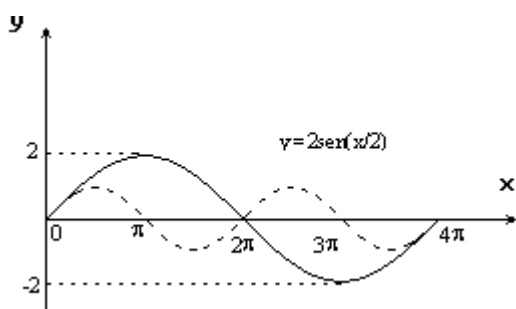
$$y = \frac{3}{2} \text{sen}x; T = 2\pi$$



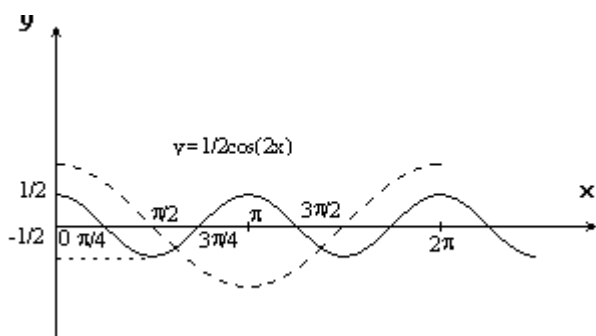
$$y = \frac{1}{2} \cos x; T = 2\pi$$



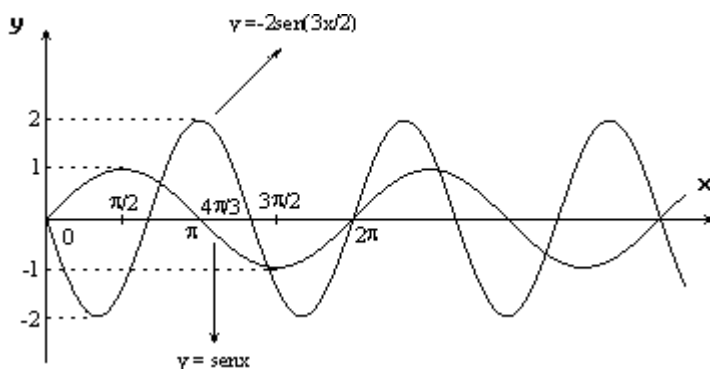
$$y = 2 \operatorname{sen}\left(\frac{x}{2}\right); T = 4\pi$$



$$y = \frac{1}{2} \cos(2x); T = \pi$$



$$y = -2 \operatorname{sen}\left(\frac{3}{2}x\right); T = \frac{4}{3}\pi$$



H) La funzione traslata:  $y = f(x + a) + b$

$$y = \text{sen}\left(x + \frac{\pi}{4}\right) - \frac{1}{2}; T = 2\pi$$

