

$$y = \underline{a} \sin \underline{b}(x - c) + d$$

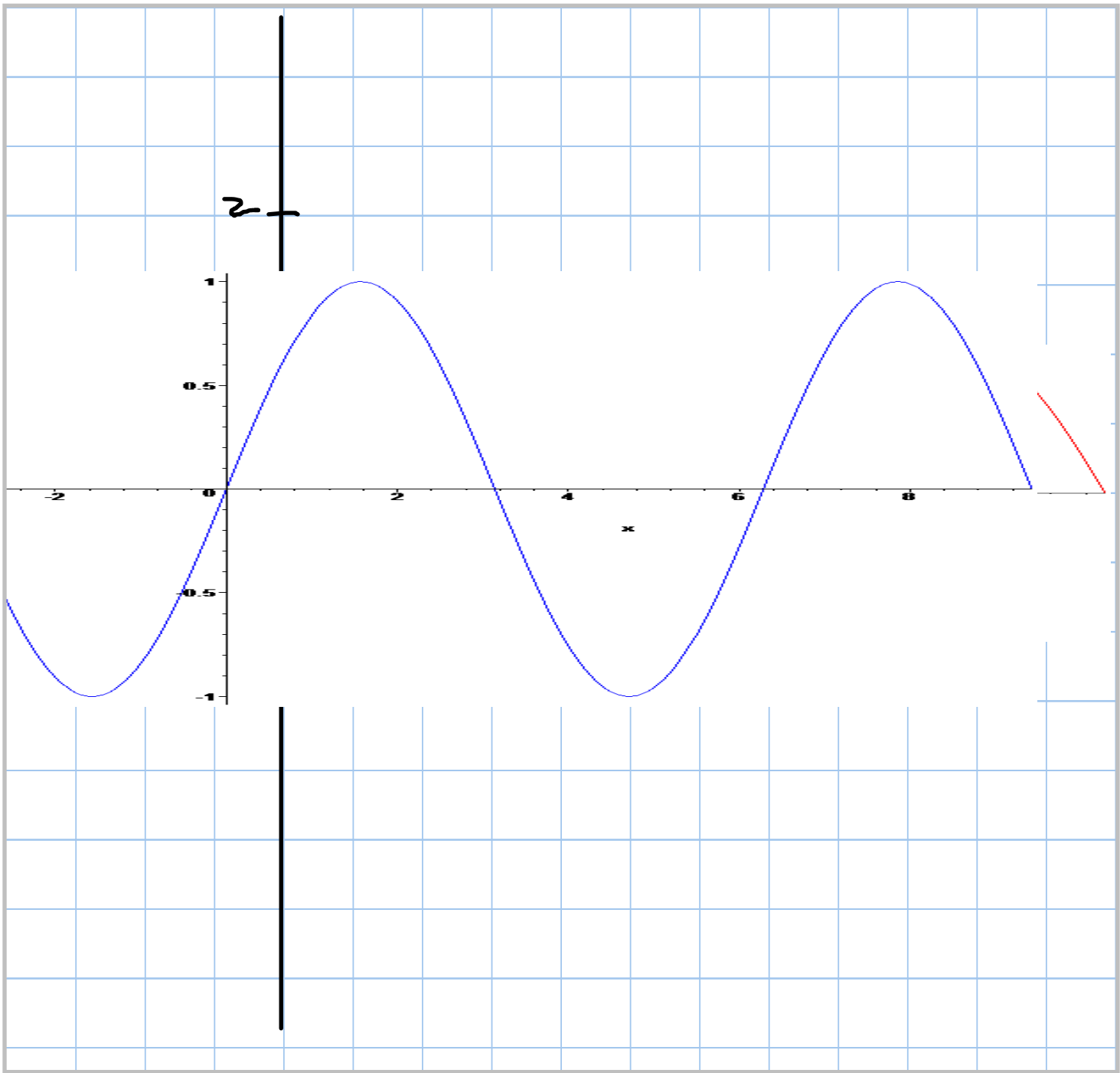
a : amplitude factor

b : periodicity factor

period: $\frac{2\pi}{b}$

d : vertical shift

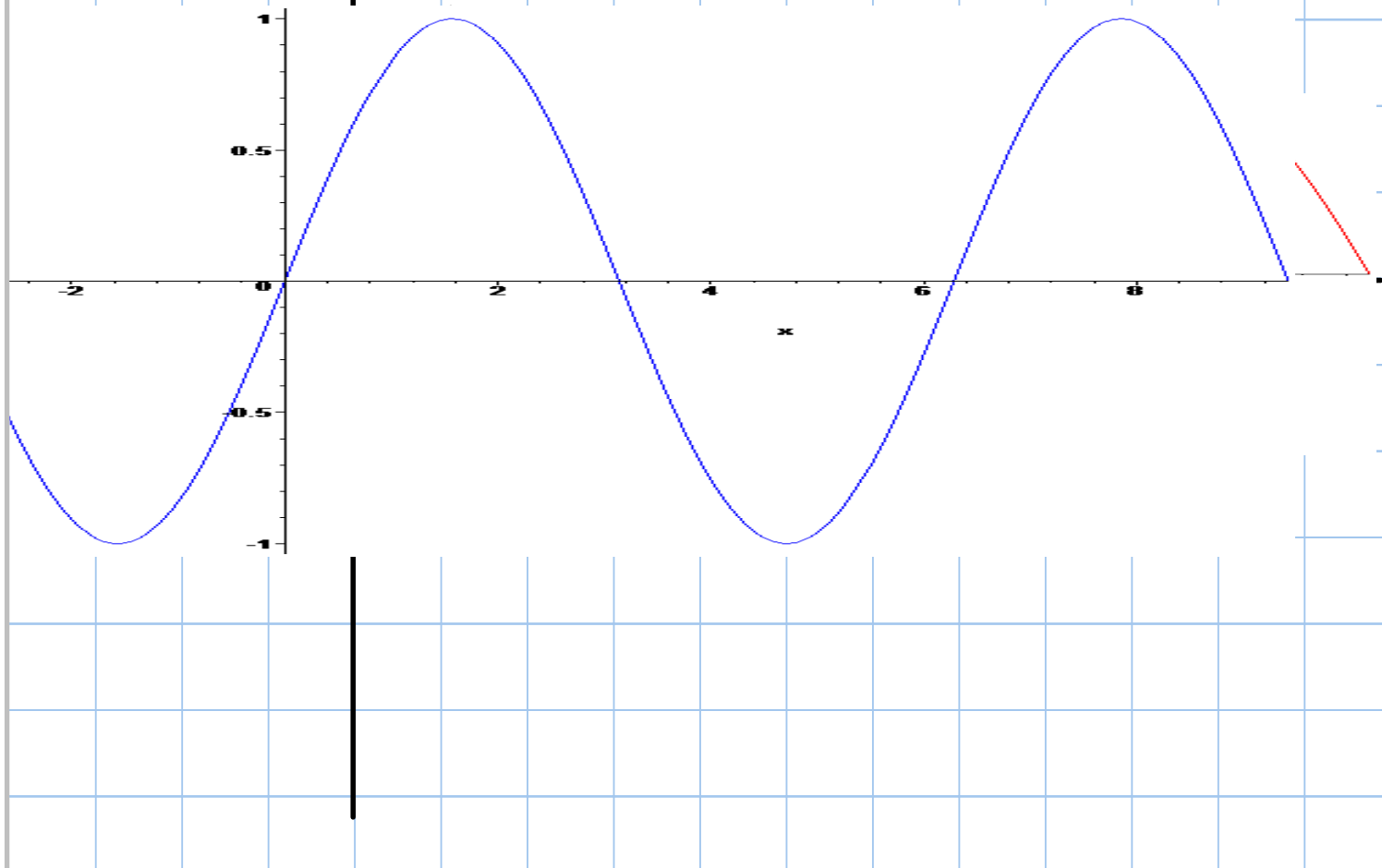
c : horizontal shift



Title: Grid - large (2 of 7)

$$y_1 = \sin(x) \quad y_2 = \cos(x)$$

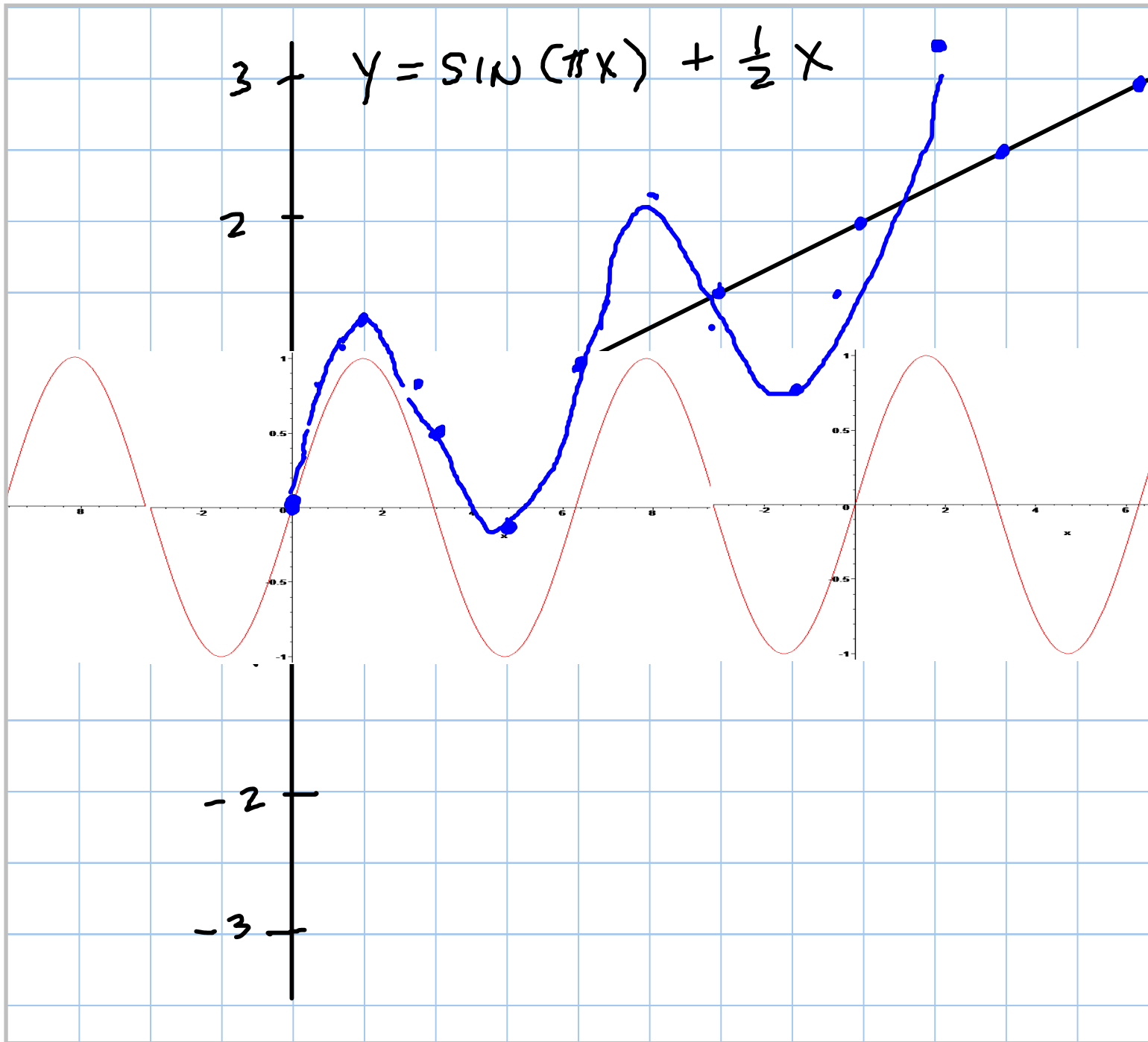
$$\rightarrow y_3 = \sin(x) + \cos(x)$$



$$y = -3 \sin\left(\pi x - \frac{\pi}{2}\right) + 2 \cos\left(\pi x - \frac{\pi}{4}\right)$$

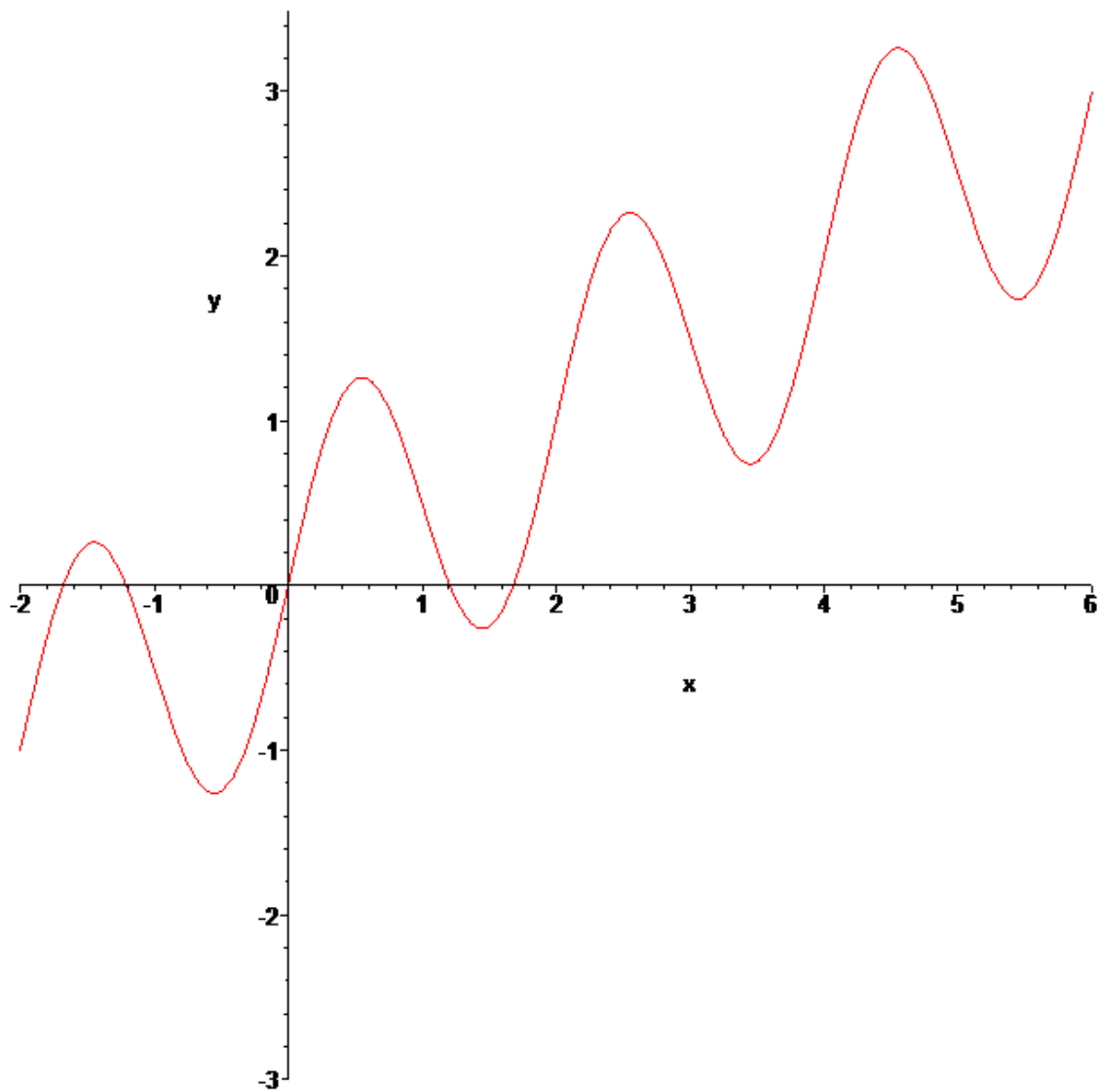
$$y = \sin(x) + 4$$

$$y = \sin(\pi x) + \frac{1}{2}x$$



Title: Grid - large (5 of 7)

```
> plot(sin(Pi*x)+.5*x,x=-2..6,y=-3..3.5);
```



```
> plot(sin(Pi*x)+(1/3)*sin(3*Pi*x)+(1/5)*sin(5*Pi*x)+(1/7)*sin(7*Pi*x)+(1/9)*sin(9*Pi*x)+(1/11)*sin(11*Pi*x)+(1/13)*sin(13*Pi*x)+(1/15)*sin(15*Pi*x),x=0..2);
```

