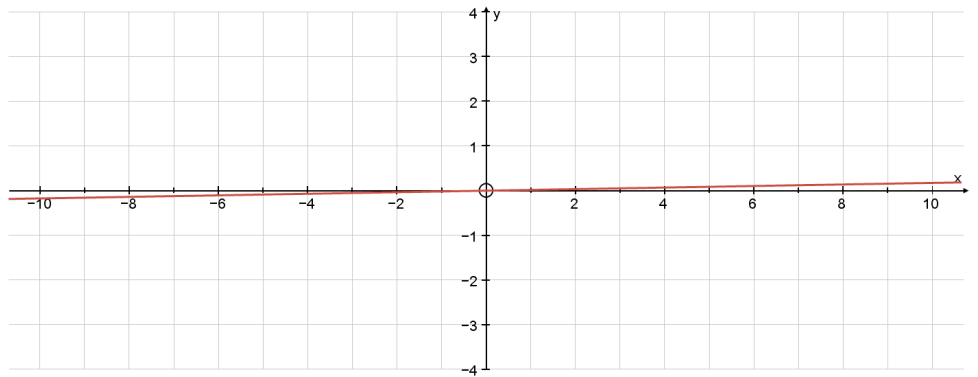




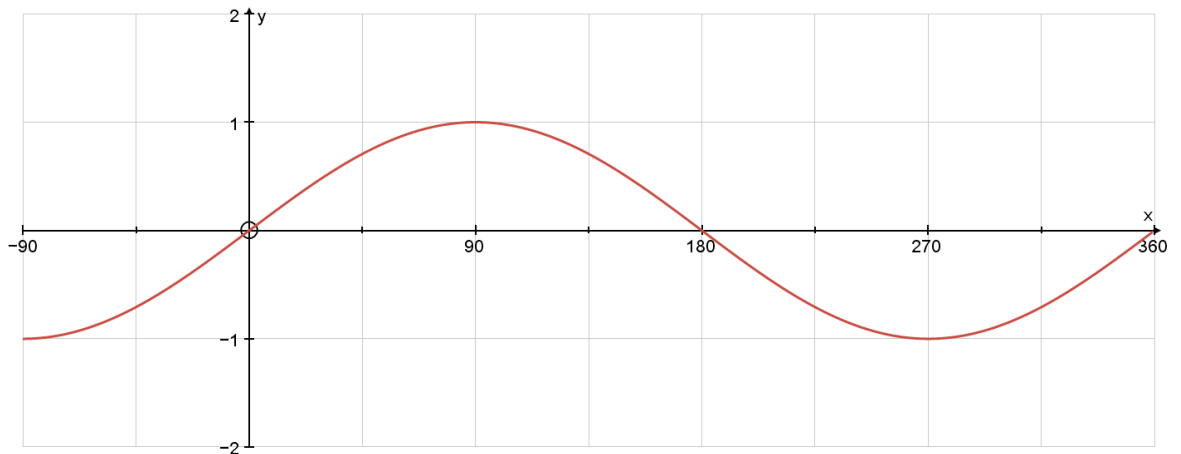
1. Enter Equation...  $y = \sin x$



2. Use the "Red Tick" to Set Default Scales.



3. The Graph

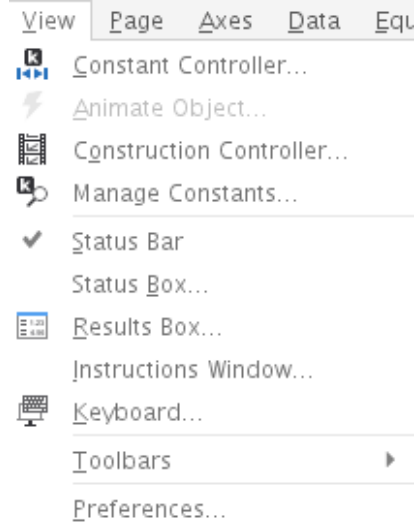


4. Edit the Equation to be  $y = a \sin x$

Use the Constant Controller to investigate what happens when  $a$  is increased and decreased.

5. Edit the Equation to be  $y = a \sin(b(x - c)) + d$

Use the View Menu to **Manage Constants**



6. Edit the Values to be:

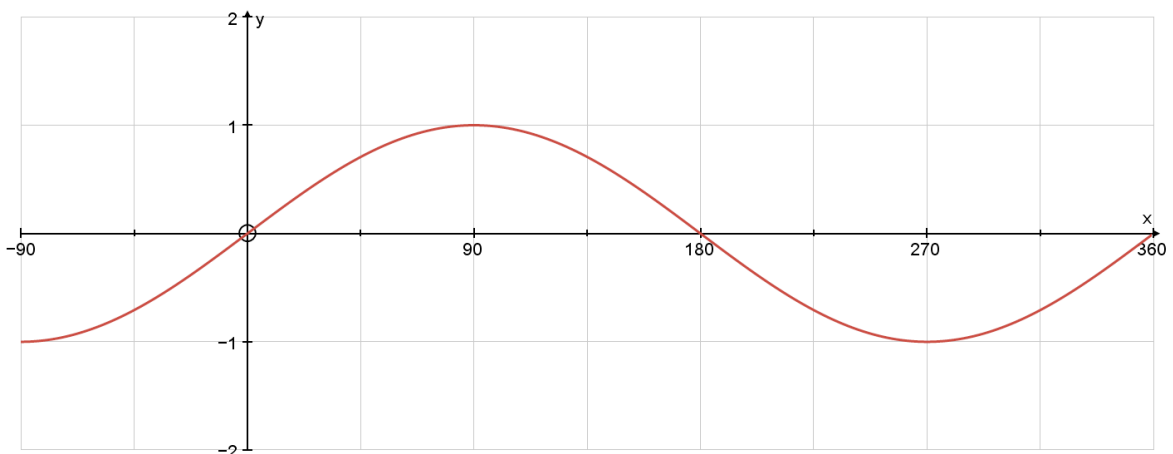
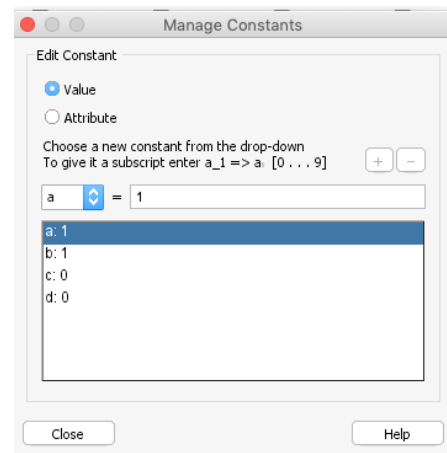
$$a = 1$$

$$b = 1$$

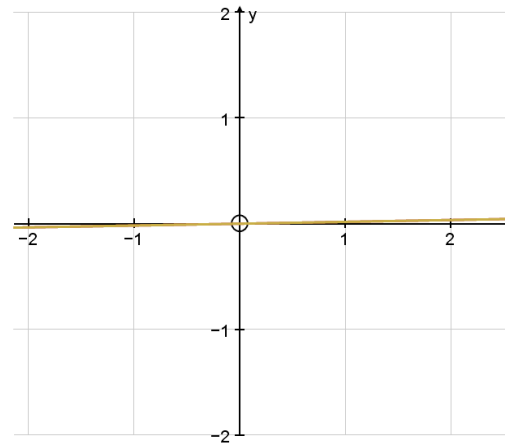
$$c = 0$$

$$d = 0$$

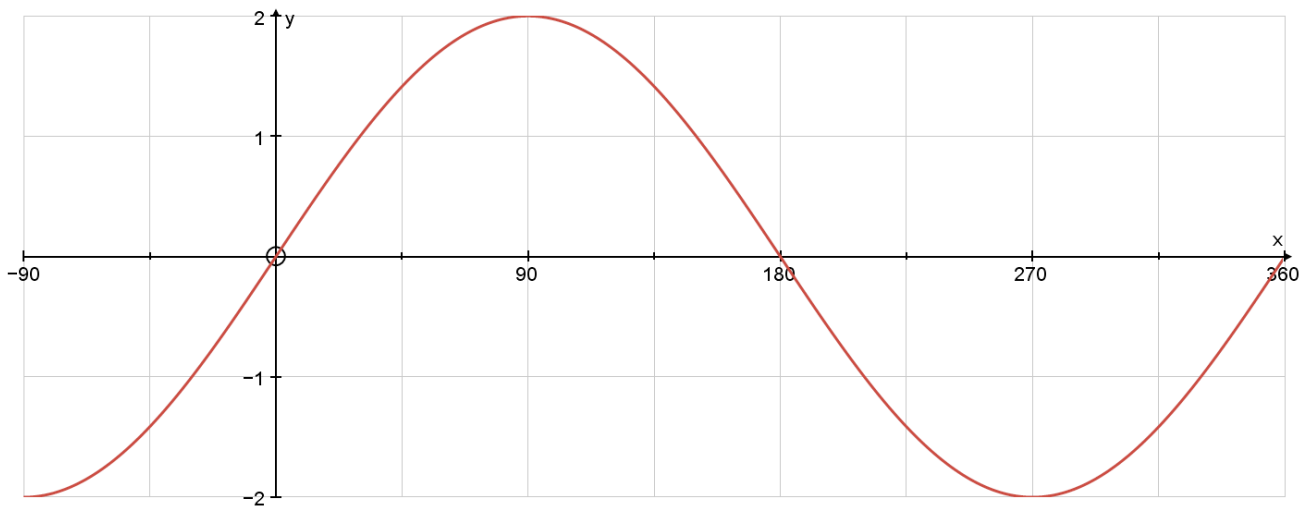
Use the View Menu to **Manage Constants**



7. Click the Equal Aspect button



The graph will look much better if you click the Default Scale red tick.





1. Investigate the Cosine Graph using  $y = a \cos x$

Alter the value for a using the constant controller

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2. Further investigate the Cosine Graph using  $y = a \cos (b(x - c)) + d$

Edit the Initial Values to be:

a = 1
b = 1
c = 0
d = 0

---

3. Investigate the graphs  $y = a \tan x$

Alter the value for a using the constant controller

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4. Investigate the graphs  $y = a \cos (b(x - c)) + d$

Edit the Values to be:

a = 1
b = 1
c = 0
d = 0