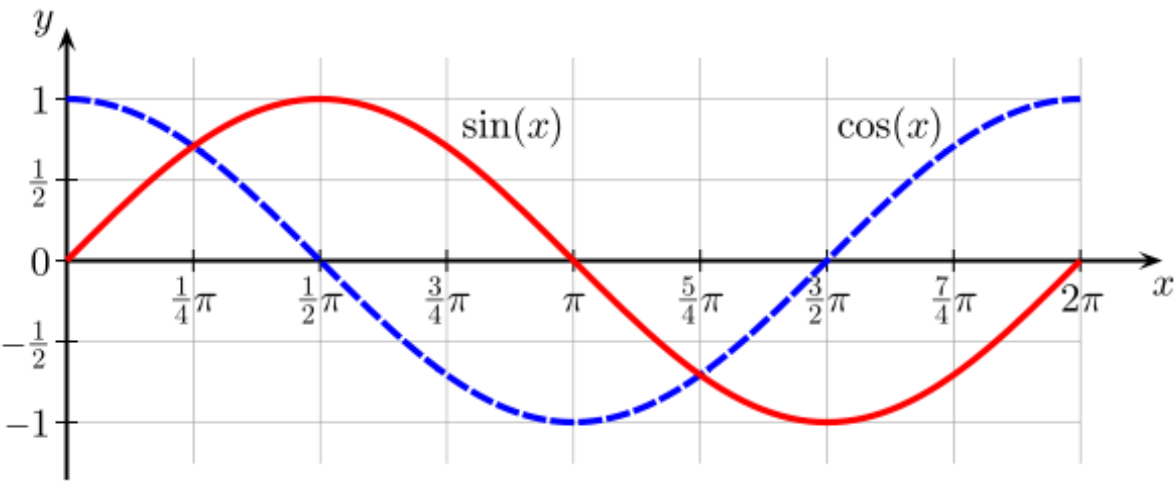```
using Plots
gr()
default(fmt = :png)
```

[2]: `using DataFrames`

## Using Plots.jl

Plots.jl outputs plots in different formats. It is written in Julia:





```
f(x) = sin(x)
g(x) = cos(x)
```
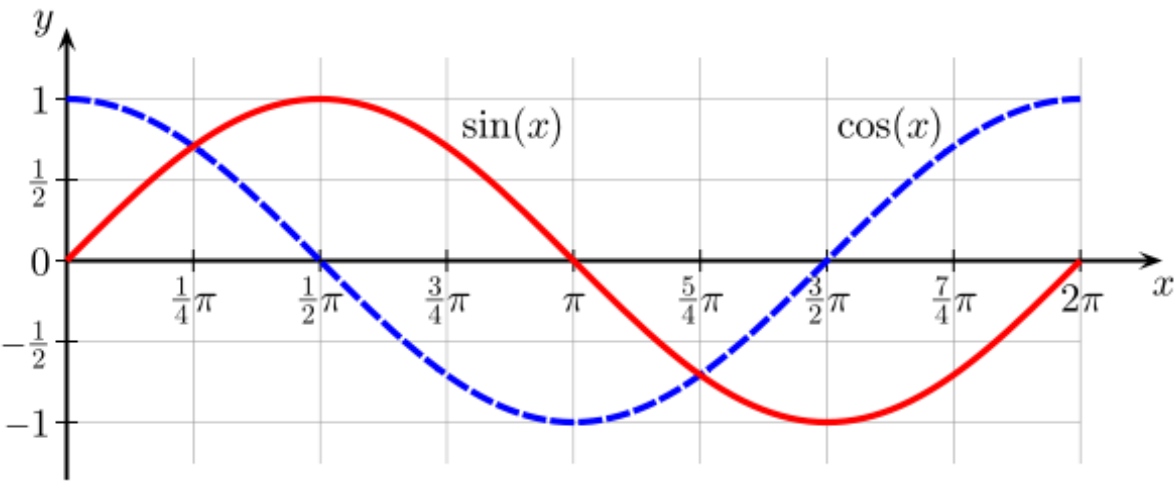[21]: `h(x) = tan(x)`

h (generic function with 1 method)

[22]: `xs = LinRange(0, 2pi, 100)`
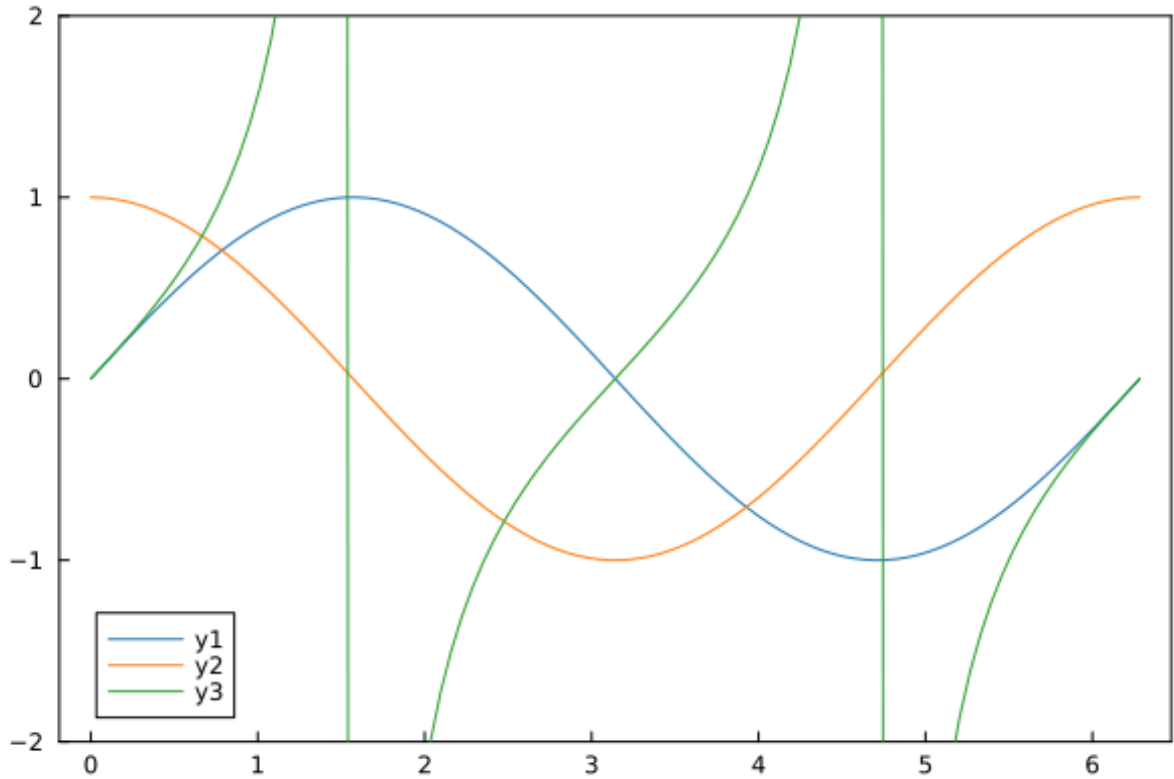
100-element LinRange{Float64, Int64}:
 0.0, 0.0634665, 0.126933, 0.1904, …, 6.09279, 6.15625, 6.21972, 6.28319

These are the trigonometric functions, $\sin(x)$ $\cos(x)$ $\tan(x)$ According to Wikipedia, their graphs look like this:



```
plot(xs, [f, g, h]; ylim = (-2, 2), framestyle = :box, grid = false, palette
```
[23]: `= :tab10)`



Let's produce an error:

[24]: `i(x)`

UndefVarError: `i` not defined

Stacktrace:
 [1] top-level scope
   @ In[24]:1

## Rich Outputs

We can try some table outputs, for example:

[3]: `df = DataFrame((col1 = ["First", "Second", "Third"], col2 = [1, 2, 3]))`

3×2 DataFrame
| Row | col1   | col2  |
|-----|--------|-------|
|     | String | Int64 |
| 1   | First  | 1     |
| 2   | Second | 2     |
| 3   | Third  | 3     |