In [1]:
```
// Importar el paquete lets-plot-kotlin
%use lets-plot
```

In [2]:
```
// Definir la función seno
fun seno(x: Double): Double {
    return sin(x)
}
```

In [3]:
```
// Crear el conjunto de datos
val datos = mapOf(
 "x" to (-20..20).map { it.toDouble() * PI / 10 }, // valores del ángulo entre -2π
 "y" to (-20..20).map { seno(it.toDouble() * PI / 10) } // valores del seno corresp
)

// visualizamos los datos para "x"
println( "datos para el eje x" )
println( datos.get("x") )
println()
// visualizamos los datos para "y"
println( "datos para el eje y" )
println( datos.get("y") )
```

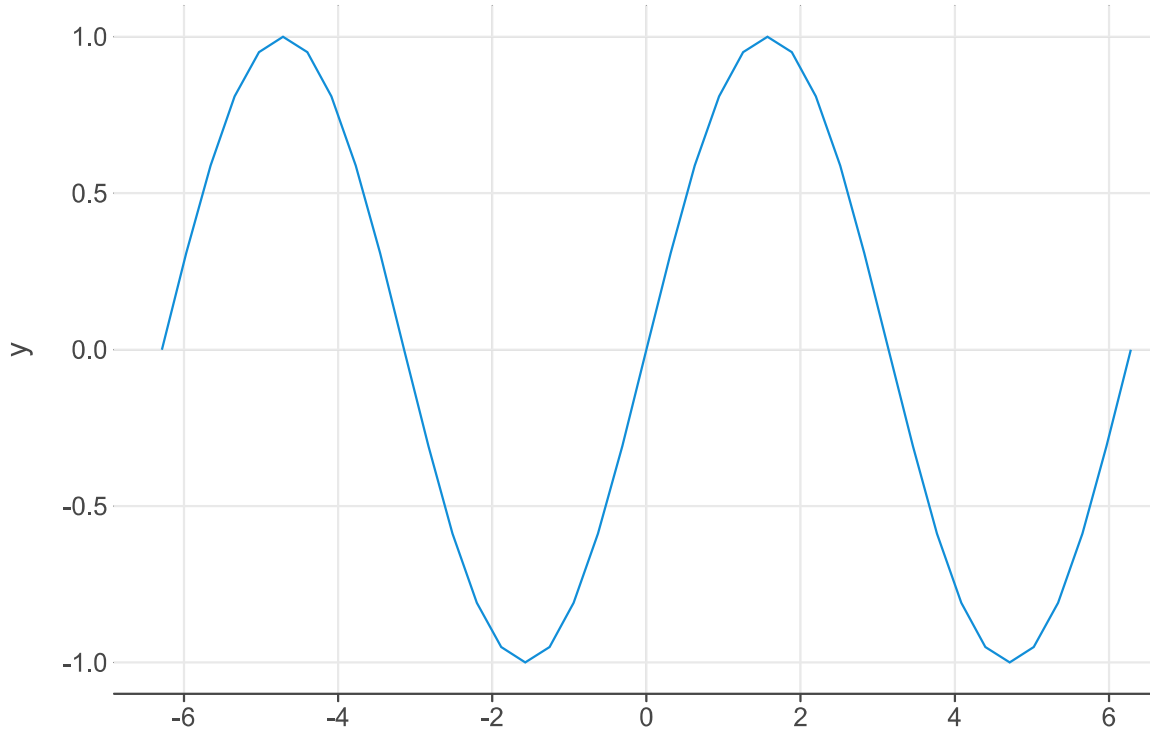
```
datos para el eje x
[-6.283185307179586, -5.969026041820607, -5.654866776461628, -5.340707511102648, -
5.026548245743669, -4.71238898038469, -4.39822971502571, -4.084070449666731, -3.76
99111843077517, -3.455751918948772, -3.141592653589793, -2.827433388230814, -2.513
2741228718345, -2.199114857512855, -1.8849555921538759, -1.5707963267948966, -1.25
66370614359172, -0.9424777960769379, -0.6283185307179586, -0.3141592653589793, 0.
0, 0.3141592653589793, 0.6283185307179586, 0.9424777960769379, 1.2566370614359172,
1.5707963267948966, 1.8849555921538759, 2.199114857512855, 2.5132741228718345, 2.8
27433388230814, 3.141592653589793, 3.455751918948772, 3.7699111843077517, 4.084070
449666731, 4.39822971502571, 4.71238898038469, 5.026548245743669, 5.34070751110264
8, 5.654866776461628, 5.969026041820607, 6.283185307179586]

datos para el eje y
[2.4492935982947064E-16, 0.3090169943749476, 0.5877852522924734, 0.809016994374947
6, 0.9510565162951536, 1.0, 0.9510565162951535, 0.8090169943749473, 0.587785252292
473, 0.3090169943749469, -1.2246467991473532E-16, -0.3090169943749475, -0.58778525
22924732, -0.8090169943749475, -0.9510565162951536, -1.0, -0.9510565162951535, -0.
8090169943749475, -0.5877852522924731, -0.3090169943749474, 0.0, 0.309016994374947
4, 0.5877852522924731, 0.8090169943749475, 0.9510565162951535, 1.0, 0.951056516295
1536, 0.8090169943749475, 0.5877852522924732, 0.3090169943749475, 1.22464679914735
32E-16, -0.3090169943749469, -0.587785252292473, -0.8090169943749473, -0.951056516
2951535, -1.0, -0.9510565162951536, -0.8090169943749476, -0.5877852522924734, -0.3
090169943749476, -2.4492935982947064E-16]
```

In [4]:
```
// Crear la capa
val capa  = geomLine {
    // Mapear los datos a los ejes
    x = "x"
    y = "y"
}
```

In [5]:
```
// Crear el gráfico
val grafico = ggplot(datos) + capa

// Mostrar el gráfico
grafico.show()
```



In [ ]: