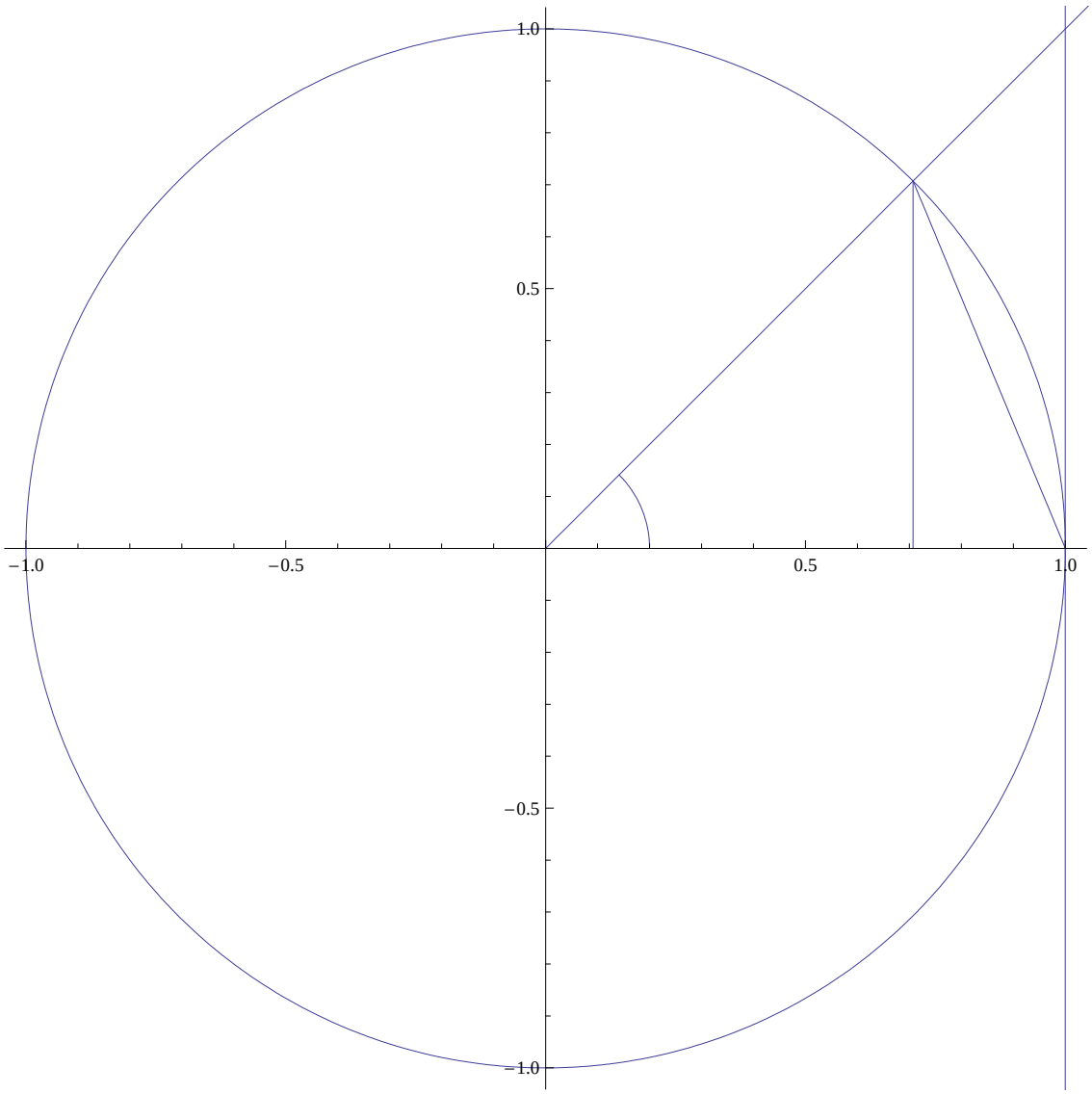
```
circ := ParametricPlot[
  {Cos[t], Sin[t]}, {t, 0, 2 * Pi}]
reta := ParametricPlot[{x, x}, {x, 0, 2}]
reta2 :=
 ParametricPlot[{1, x}, {x, -2, 2}]
reta3 := ParametricPlot[
  {x, -(2^0.5) / (2 - (2^0.5)) * (x - 1)},
  {x, (2^0.5) / 2, 1}]
reta4 := ParametricPlot[
  {2^0.5 / 2, x}, {x, 0, 2^0.5 / 2}]
circ2 := ParametricPlot[{0.2 * Cos[t],
   0.2 * Sin[t]}, {t, 0, Pi / 4}]
```

```
Show[circ, reta,
 reta2, reta3 , reta4, circ2]
```




```
f[x_] = Cos[x]
```

$$\text{Cos}[x]$$

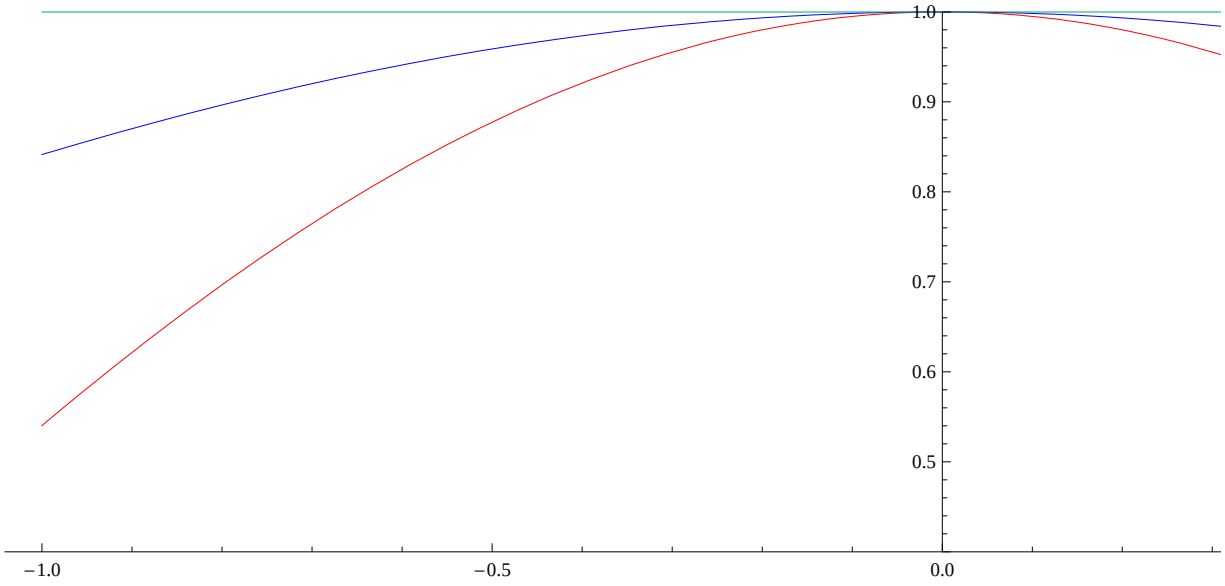
```
g[x_] = Sin[x] / x
```

$$\frac{\text{Sin}[x]}{x}$$

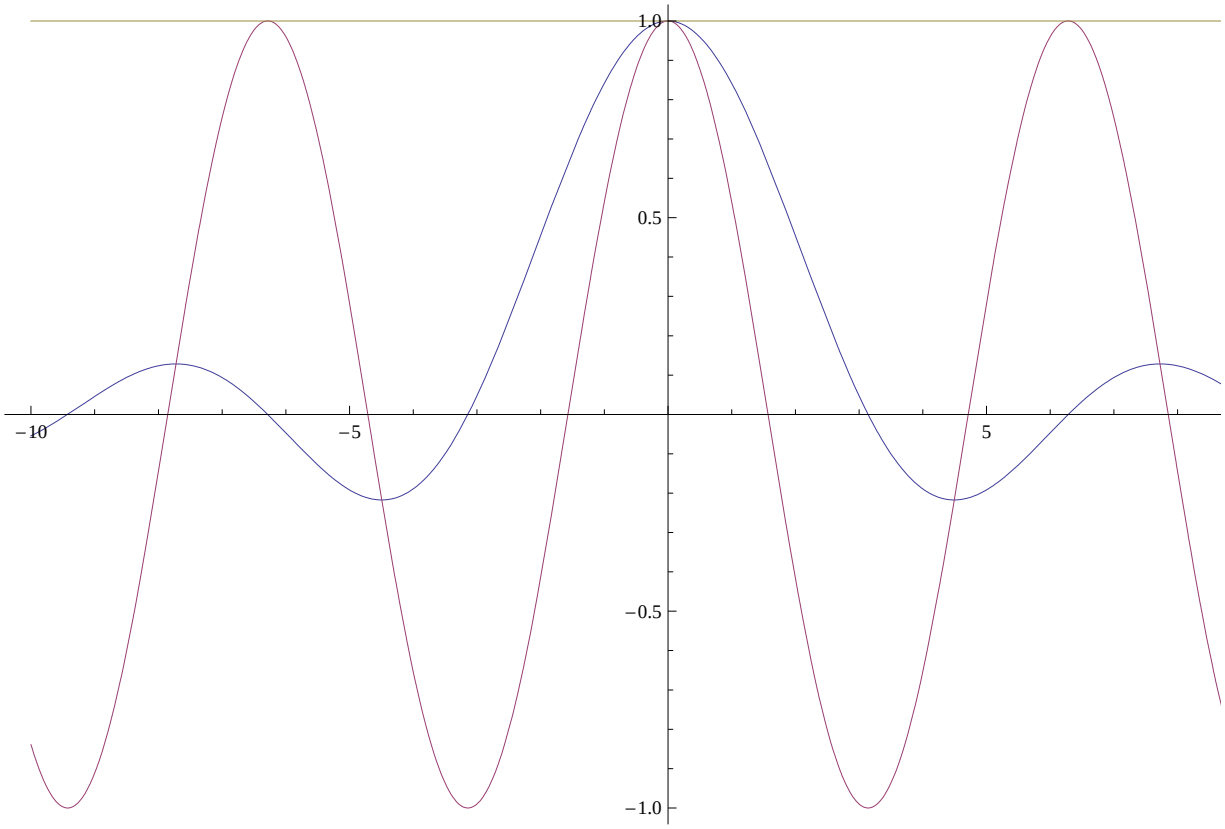
```
h[x_] = 1
```

$$1$$

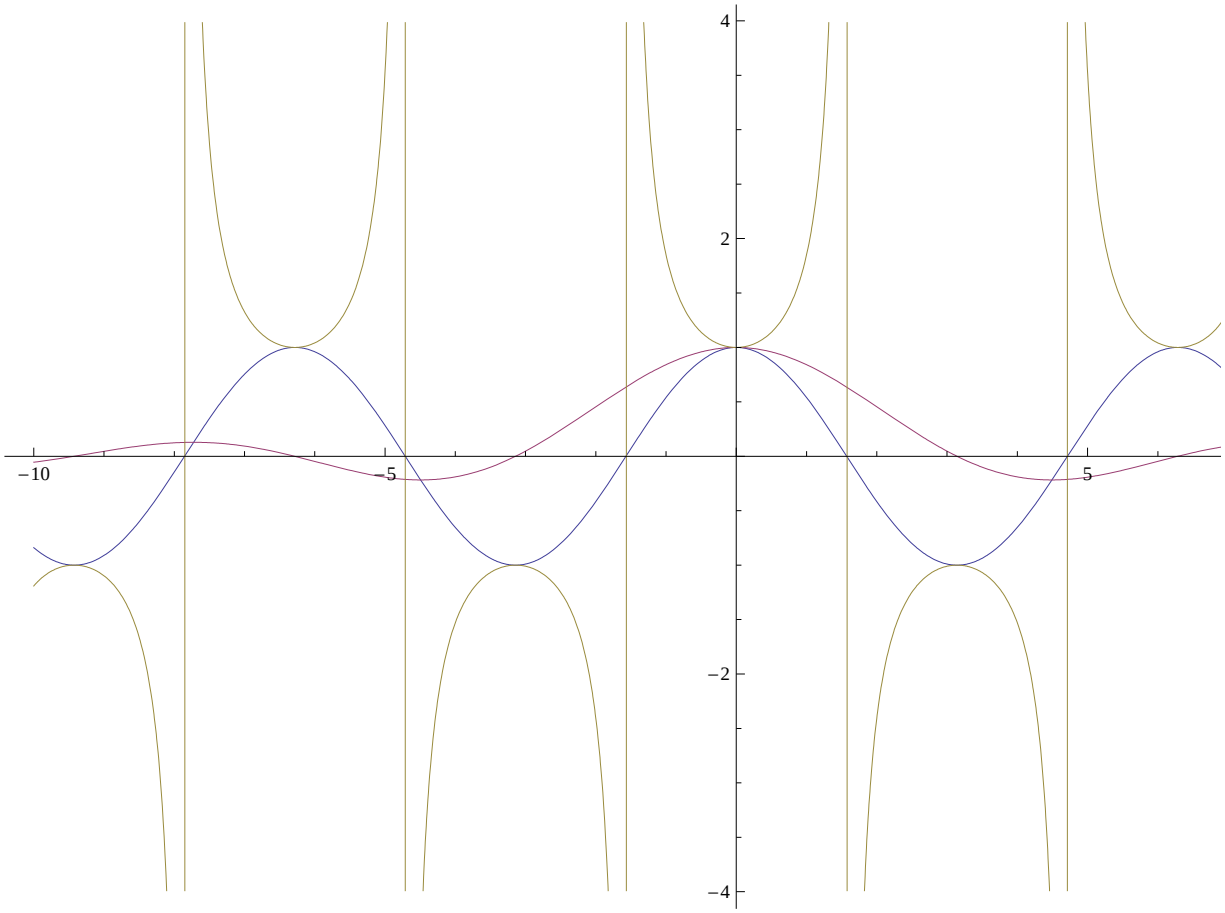
```
Plot[{f[x], g[x], h[x]},
 {x, -1, 1}, PlotStyle →
  {RGBColor[1, 0, 0], RGBColor[0, 0, 1],
   RGBColor[0, 0.666667, 0.376287]},
 PlotRange → {0.4, 1},
 AspectRatio → Automatic]
```



```
Plot[{Sin[x] / x, Cos[x], 1},
 {x, -10, 10}]
```



```
Plot[{Cos[x], Sin[x] / x, 1 / Cos[x]},
 {x, -10, 10}]
```




```
Limit[1 / Cos[x], x → 0]
```

1

```
Limit[Cos[x], x → 0]
```

1

```
Limit[Sin[x] / x,
 x → 0, Direction → 1]
```

1

```
Limit[Sin[x] / x,
 x → 0, Direction → -1]
```

1

```
Limit[1 / x, x → 0, Direction → 1]
```

$-\infty$

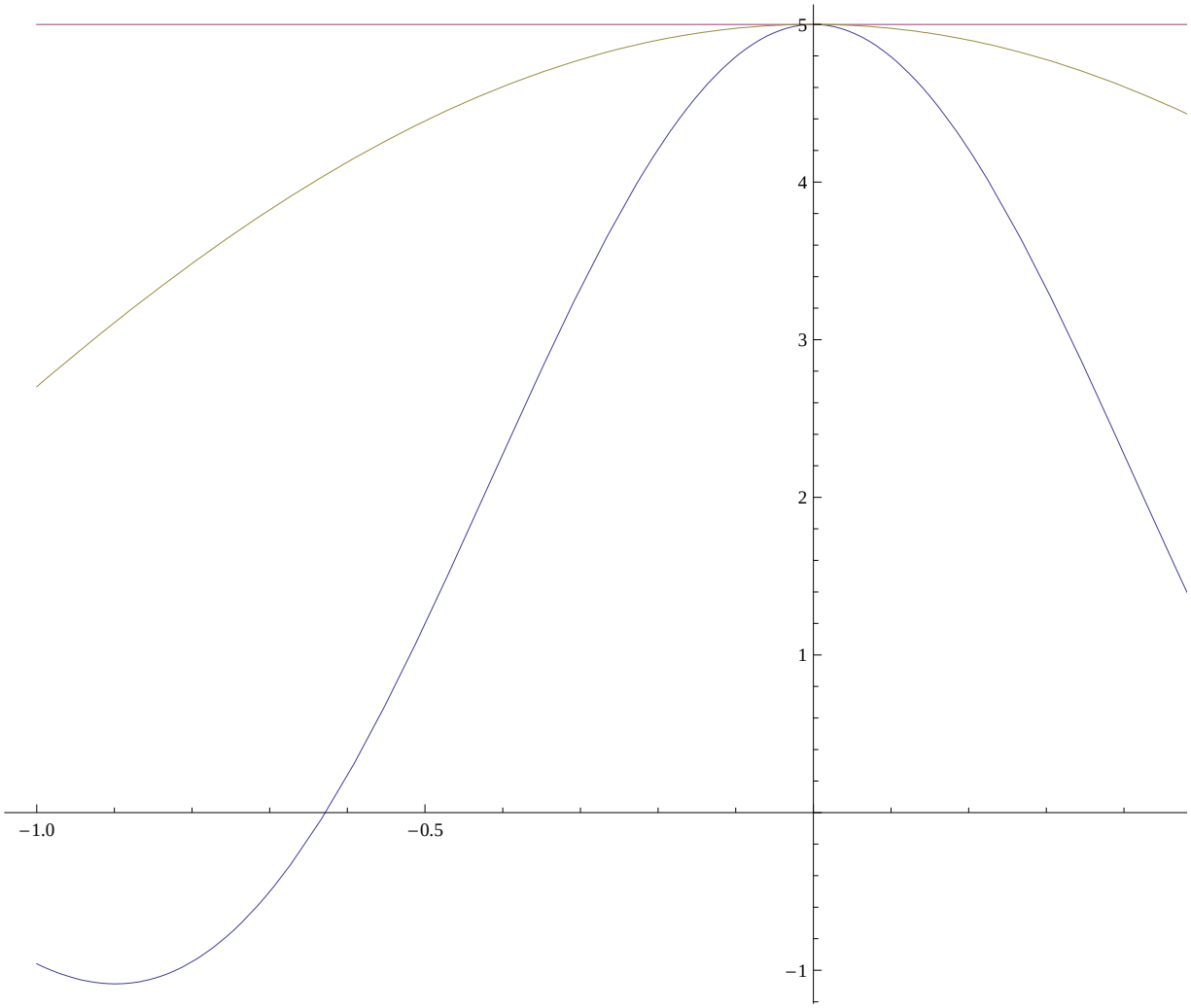
```
Limit[1 / x, x → 0, Direction → -1]
```

∞

```
Limit[Sin[5 x] / x, x → 0]
```

5

```
Plot[{Sin[5 x] / x, 5, 5 Cos[x]},
 {x, -1, 1}]
```




```
Plot[Tan[x] / x, {x, -1, 1}]
```