```
<< Graphics`FilledPlot`
$TextStyle = {FontFamily → "Times", FontWeight → "Bold", FontSize → 16}
```

{FontFamily → Times, FontWeight → Bold, FontSize → 16}

```
Problem01 = Plot[{√(1 - x⁴) , -√(1 - x⁴) }, {x, -1, 1}, AspectRatio → Automatic,
   Filling → {1 → {{2}, RGBColor[0.5`, 0.5`, 1]}}, Filling → {1 → {2}}]
```
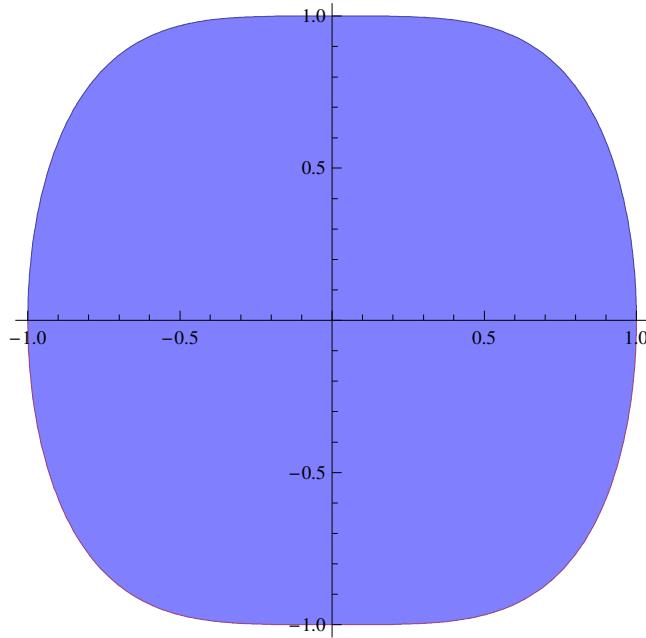


```
Problem02 = Plot[{0, 1 - x²}, {x, -1, 1}, AspectRatio → Automatic,
   Filling → {1 → {{2}, RGBColor[0.5`, 0.5`, 1]}}, Filling → {1 → {2}}]
```
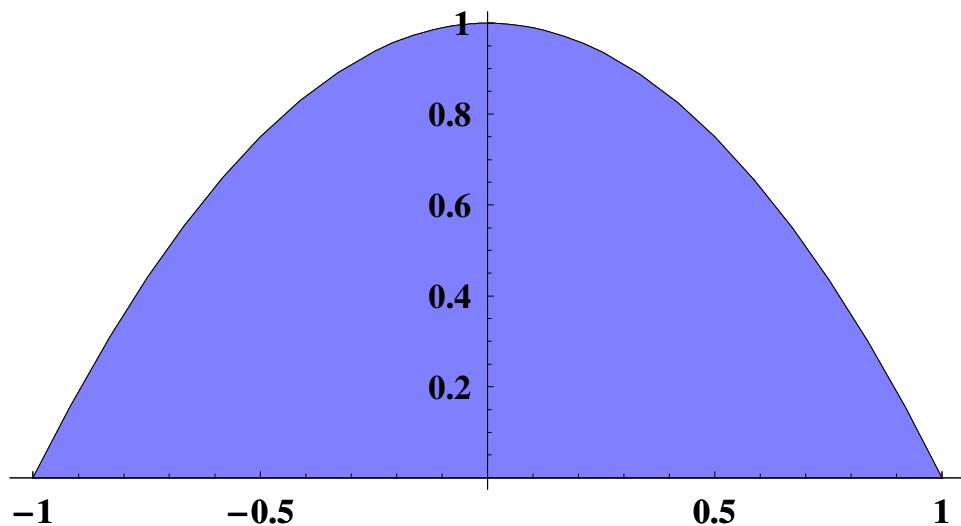
`Problem03 = Plot` $\left[\left\{2 - \sqrt{16 - 4\,x^2}\,,\ 2 + \sqrt{16 - 4\,x^2}\right\},\ \{x,\ -2,\ 2\},\right.$

`AspectRatio → Automatic, PlotStyle → {{RGBColor[0.5`, 0.5`, 1], AbsoluteThickness[2]}}}`
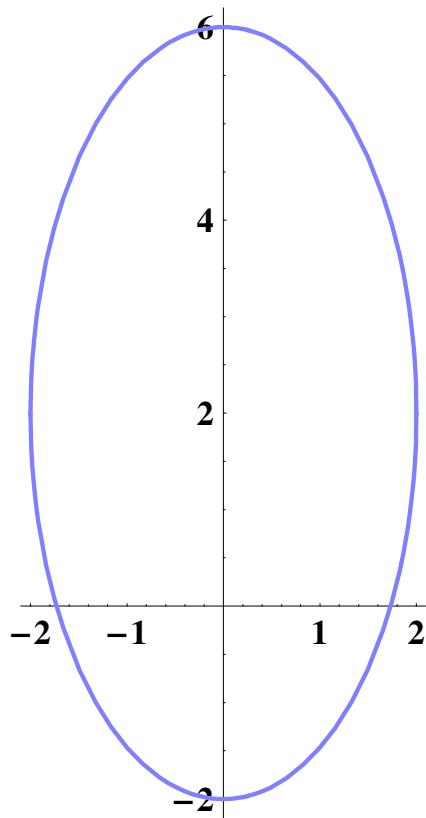
`Problem04 = Plot` $\left[\left\{\sqrt{1 - \left(1 - \sqrt{4 - x^2}\right)^2}\,,\ -\sqrt{1 - \left(1 - \sqrt{4 - x^2}\right)^2}\right\},\ \{x,\ -2,\ 2\},\right.$

`AspectRatio → Automatic, Filling → {1 → {{2}, RGBColor[0.5`, 0.5`, 1]}}, Filling → {1 → {2}}}`
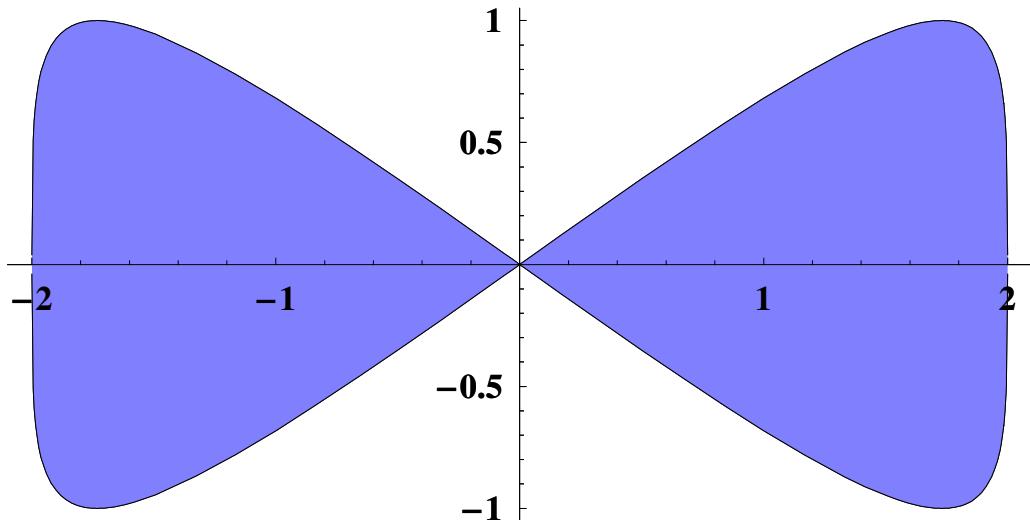
Problem05 = Plot $\left[\left\{1 + \sqrt{x^2 + 3}\,,\ 3,\ 1 - \sqrt{x^2 + 3}\,,\ -1\right\}, \{x,\ -1,\ 1\},\ \text{AspectRatio} \rightarrow \text{Automatic},\right.$

  Filling $\rightarrow \{1 \rightarrow \{\{2\},\ \text{RGBColor}[0.5^\backprime,\ 0.5^\backprime,\ 1]\},\ 3 \rightarrow \{\{4\},\ \text{RGBColor}[0.5^\backprime,\ 0.5^\backprime,\ 1]\}\},$

  Filling $\left.\rightarrow \{1 \rightarrow \{2\},\ 2 \rightarrow \{3\},\ 3 \rightarrow \{4\}\}\right]$