

$$S3[x_] = \sum_{n=0}^3 (x^n)$$

$$S6[x_] = \sum_{n=0}^6 (x^n)$$

$$S9[x_] = \sum_{n=0}^9 (x^n)$$

$$S12[x_] = \sum_{n=0}^{12} (x^n)$$

$$S15[x_] = \sum_{n=0}^{15} (x^n)$$

```
In[92]:= Plot[{S3[x], S6[x], S9[x], S12[x], S15[x]}, {x, -1, 1},
  AxesLabel -> {x, y}, LabelStyle -> Large, PlotRange -> Full]
```

