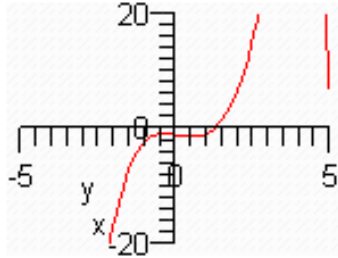


Newton's Method

$$f := x \rightarrow 2 \cdot x^3 - 3^x$$

$$x \rightarrow 2x^3 - 3^x$$

`plot(f(x), x = -5..5, y = -20..20);`



$$g := x \rightarrow x - \frac{f(x)}{D(f)(x)};$$

$$x \rightarrow x - \frac{f(x)}{(D(f))(x)}$$

`x[0] := 2;`

2

`x[1] := evalf(g(x[0]));`

1
.503985456

`x[2] := evalf(g(x[1]));`

1
.301772223

`x[3] := evalf(g(x[2]));`

1
.260041905

$x[4] := \text{evalf}(g(x[3]));$

1
.258265719