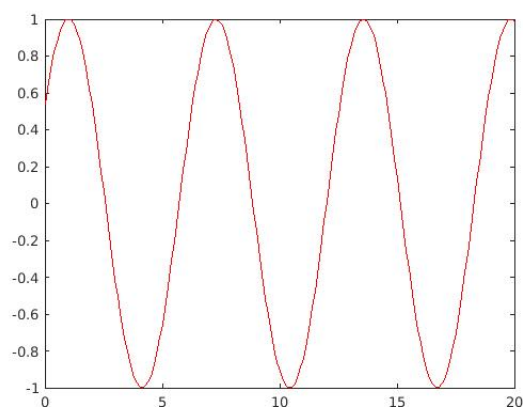
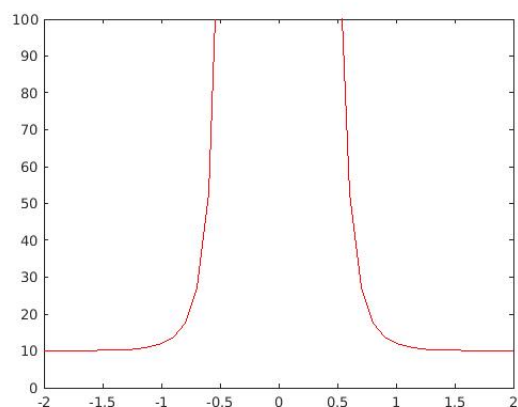
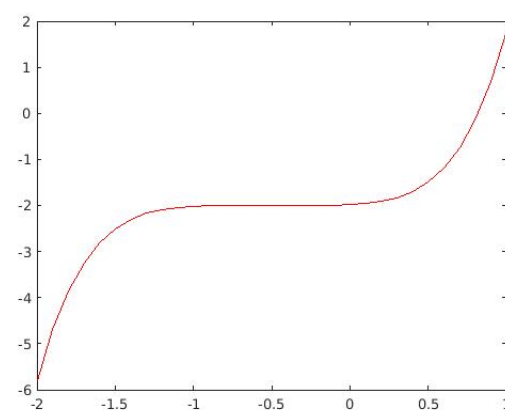
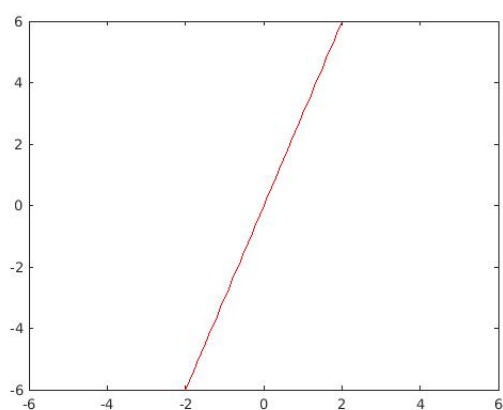
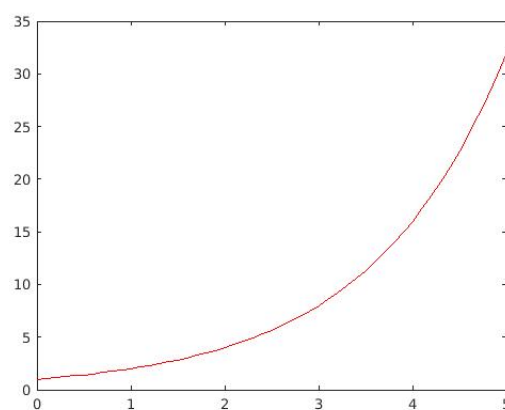
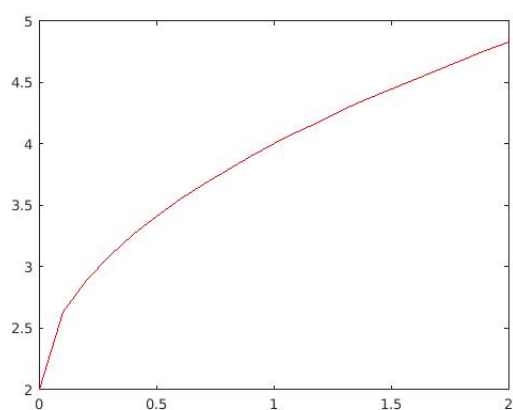




Math Preparation Course / *Mathe-Vorbereitungskurs*
Sheet 5 / *Blatt 5*

- 1) (a) $f(x) = 2^x$ (c) $f(x) = \frac{1}{2}(x + \frac{1}{2})^5 - 2$ (e) $f(x) = 3x$
(b) $f(x) = 2 + 2\sqrt{x}$ (d) $f(x) = \cos(x - 1)$ (f) $f(x) = 2x^{-6} + 10$



2) Sketch the following functions. *Skizzieren Sie die folgenden Funktionen:*

(a) $f(x) = 2 \sin(x + \pi)$ on $[-2\pi, 2\pi]$

(b) $f(x) = (x - 1)^2 + 2$ on $[-2, 2]$

3) Simplify. *Vereinfachen Sie:*

(a) $\ln(e^2 e^5) =$

(b) $e^{2 \ln(3)} =$

(c) $\ln\left(\frac{1}{e^4} e^5\right) =$

(d) $e^{2 \ln(\sqrt{e})} =$