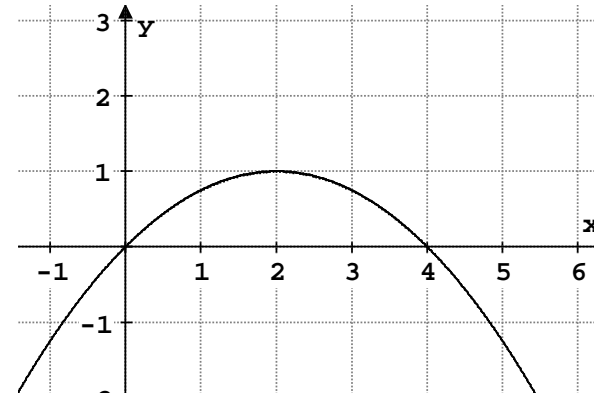
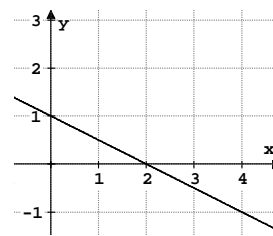


- 1) Waagrechte Tangenten von G_f : Nullstellen von f'
- 2) G_f steigt $\Rightarrow f' > 0$
- 3) G_f fällt $\Rightarrow f' < 0$
- 4) f' kann punktweise erzeugt werden als Steigung der Tangenten

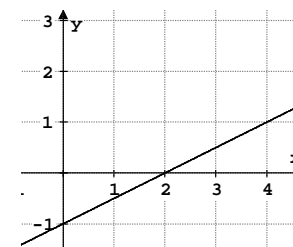
A1) Gegeben ist der Graph der Funktion f



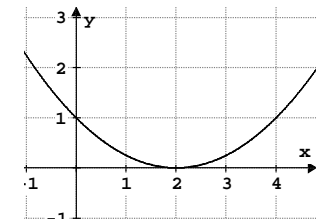
Welcher der eingezeichneten Graphen ist der Graph von f' ?



a)

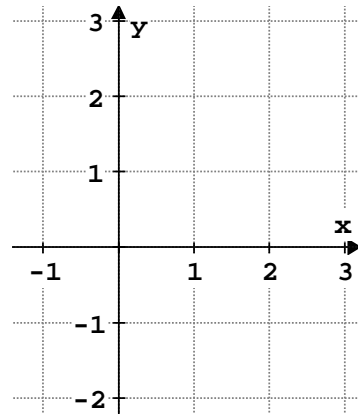
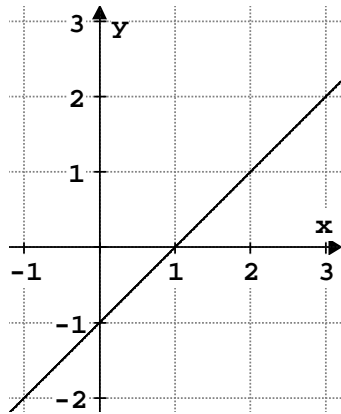


b)



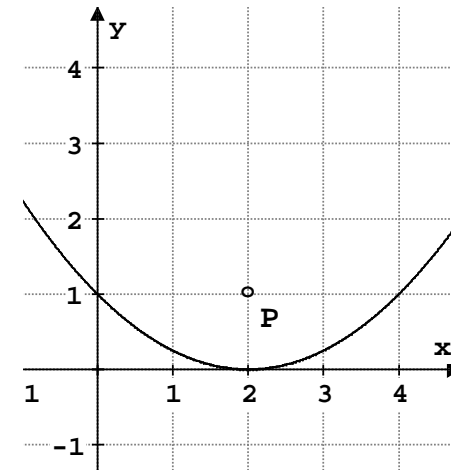
c)

A2) Gegeben ist der Graph von f' Skizzieren Sie den zugehörigen Graphen G_f



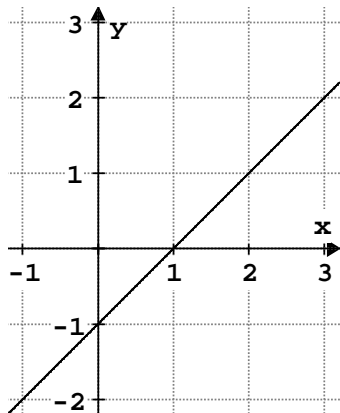
Was fällt dabei auf?

A4) Weil es so schön war – P ist eingezeichnet

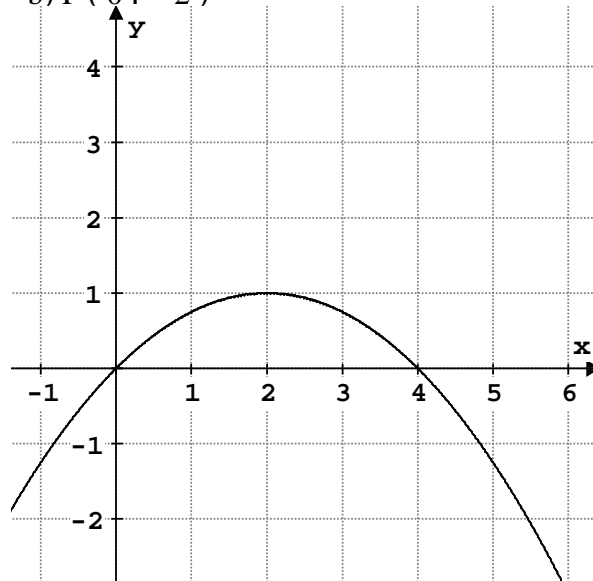


A3) Das Ganze noch einmal! Jetzt in die Zeichnung dazu mit $P \in G_f$

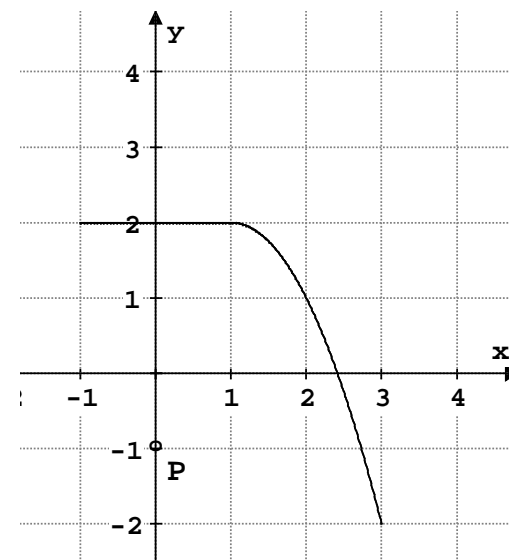
a) $P(0 | 2)$



b) $P(0 | -2)$

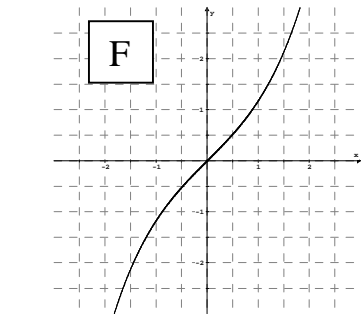
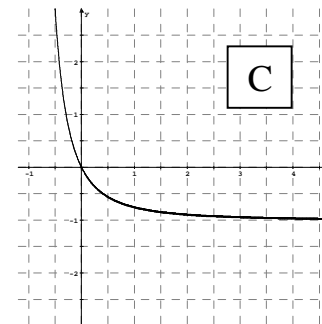
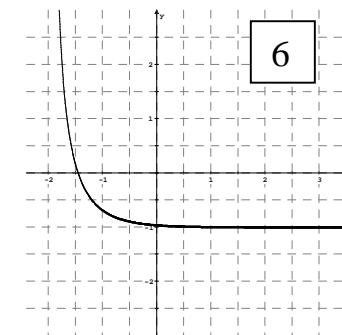
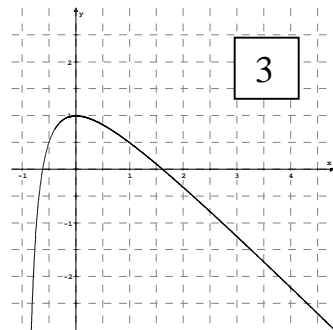
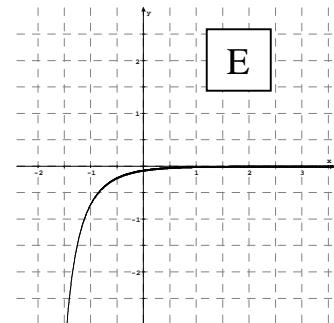
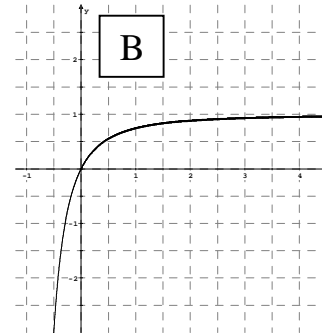
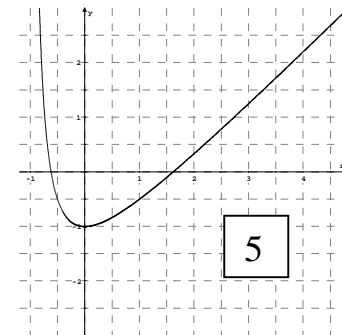
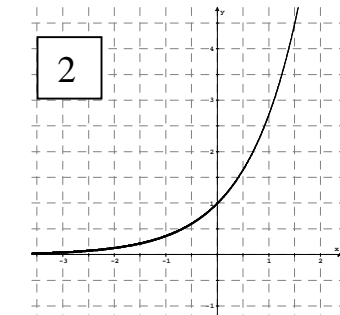
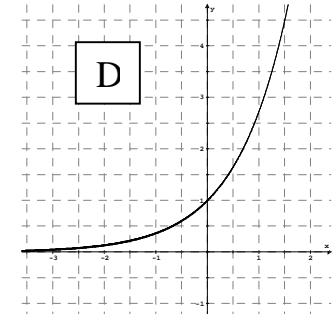
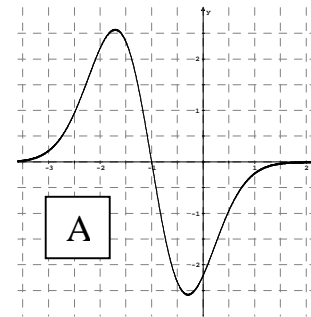
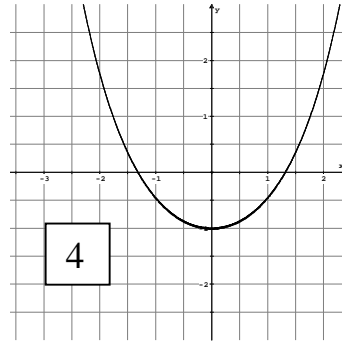
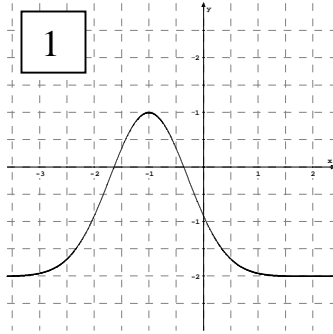


A5) Und noch einmal – P ist eingezeichnet



A6) Welche Ableitung gehört zu welcher Funktion ?

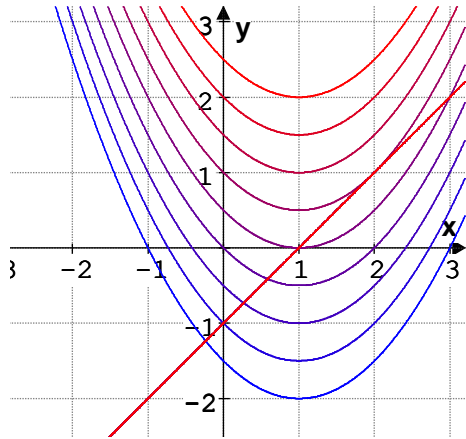
Funktionsgraphen



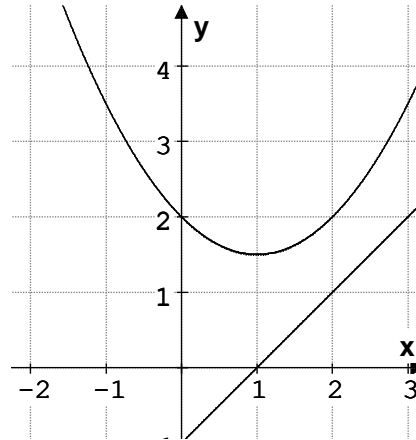
Lösungen

A1) a { $LK < 0 \Rightarrow$ Gerade fällt}

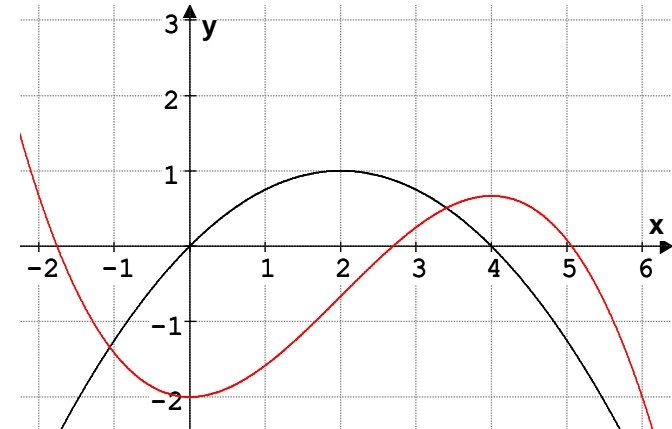
A 2) unendlich viele Lösungen
(da Ableitung der Konstanten verschwindet)



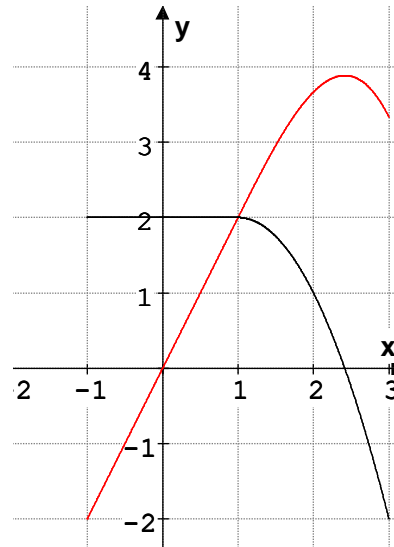
A 3 a)



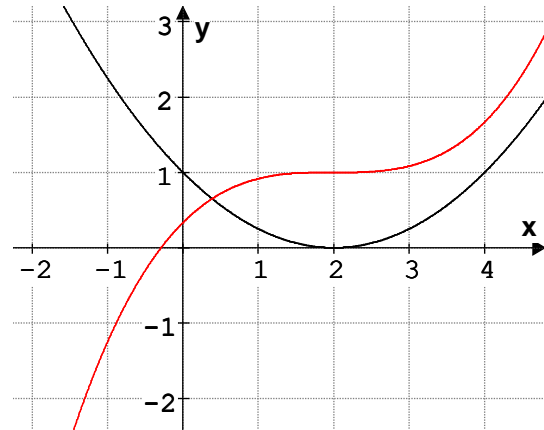
A 3 b)



A 5)



A 4)



A 6)

- 1 A
- 2 D
- 3 C
- 4 F
- 5 B
- 6 E