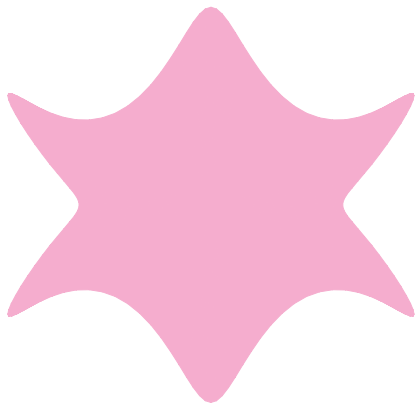
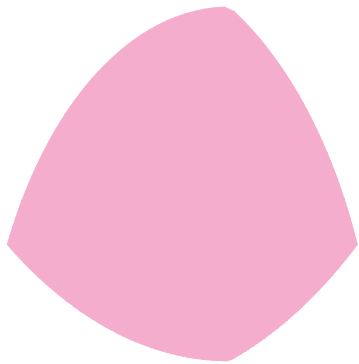
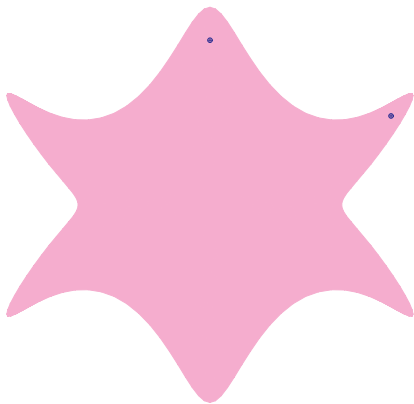
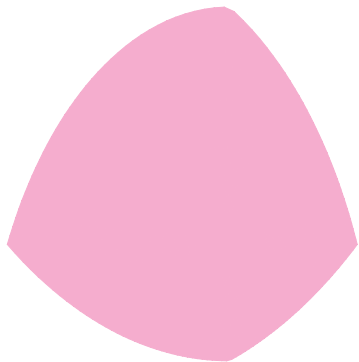


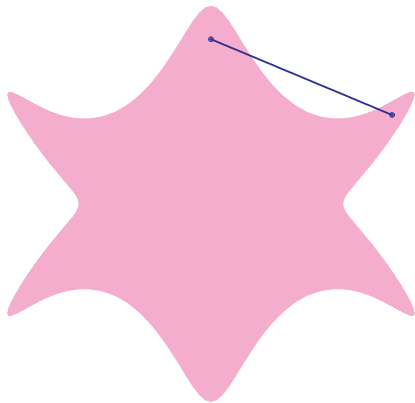
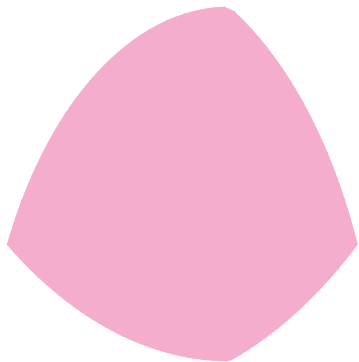
Convex and non-convex sets



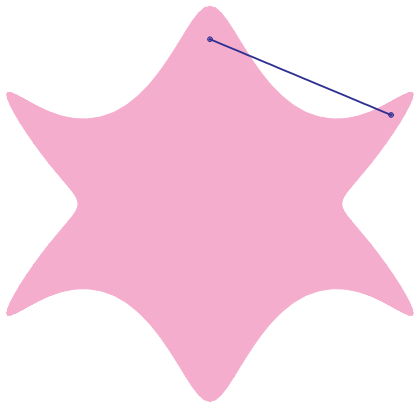
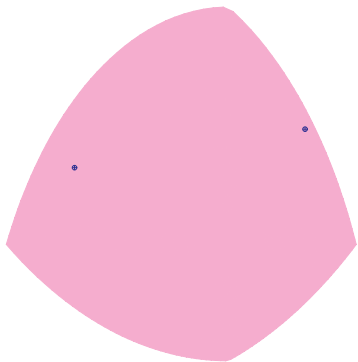
Convex and non-convex sets



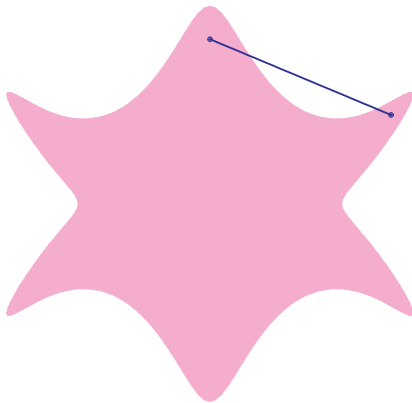
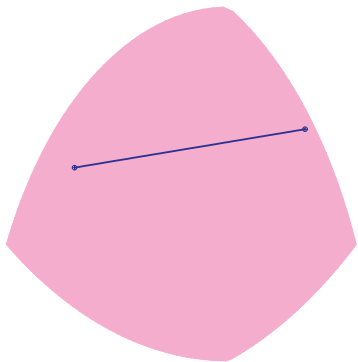
Convex and non-convex sets



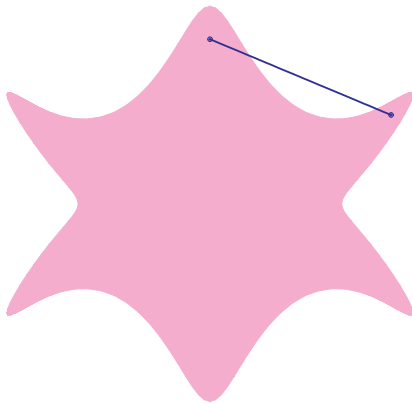
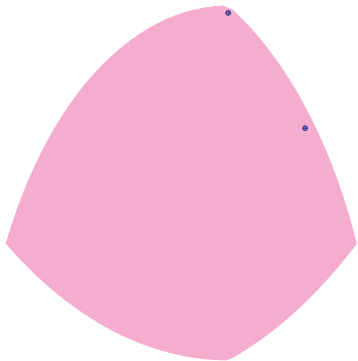
Convex and non-convex sets



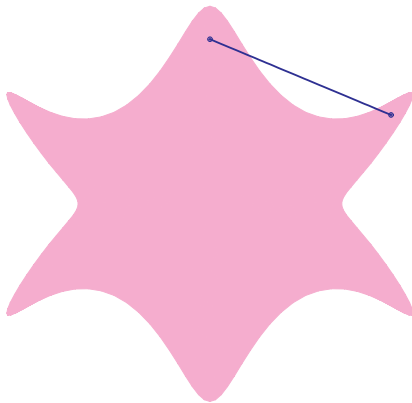
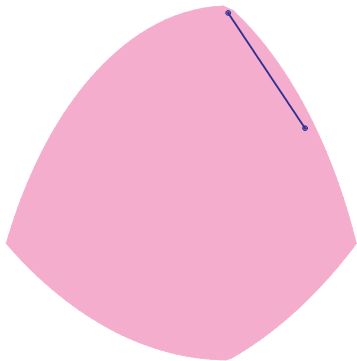
Convex and non-convex sets



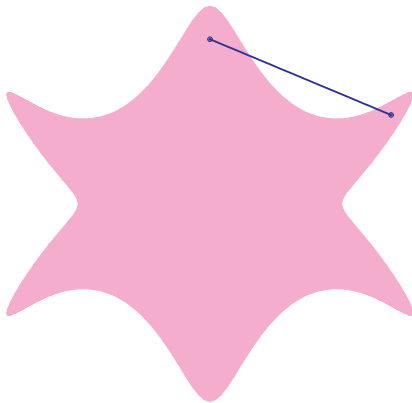
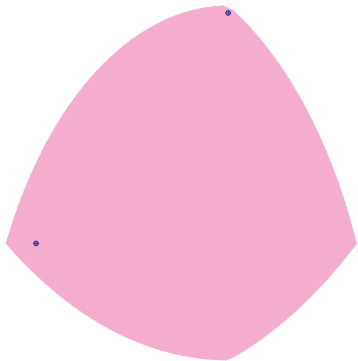
Convex and non-convex sets



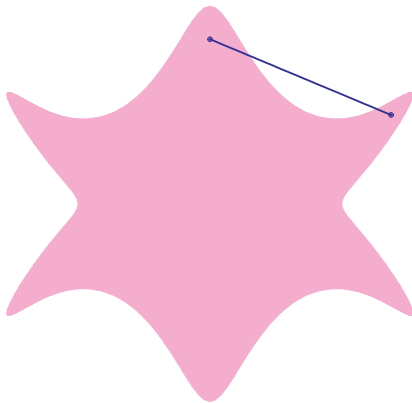
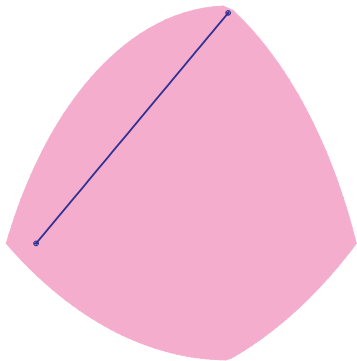
Convex and non-convex sets



Convex and non-convex sets



Convex and non-convex sets

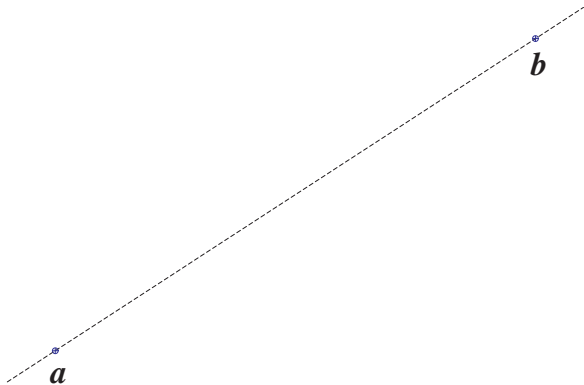


Convex combination

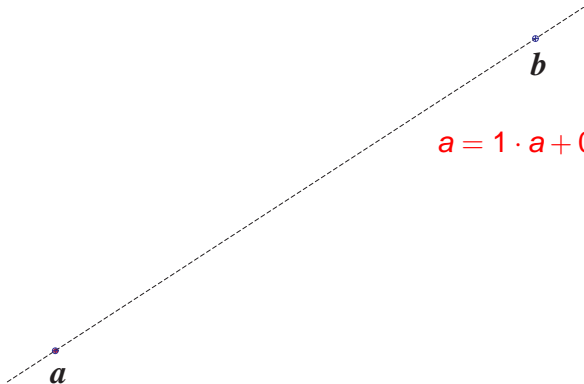
\oplus
a

\oplus
b

Convex combination

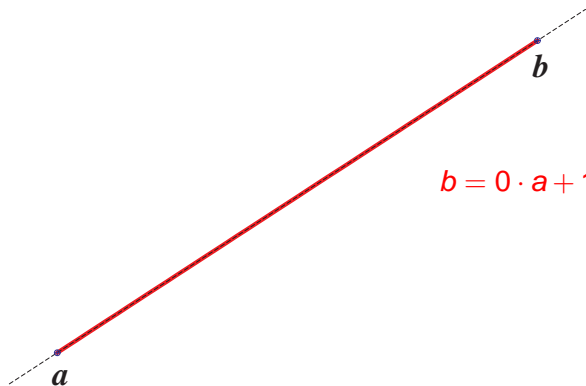


Convex combination



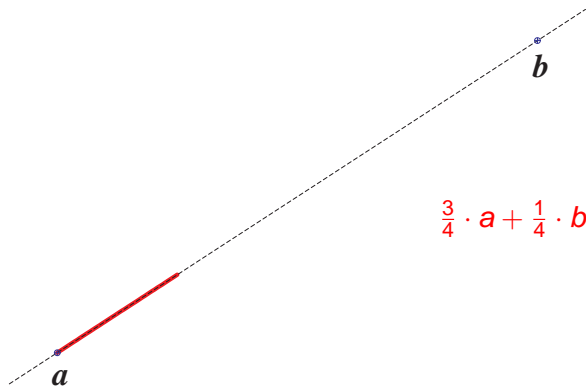
$$a = 1 \cdot a + 0 \cdot b = a + 0 \cdot (b - a)$$

Convex combination



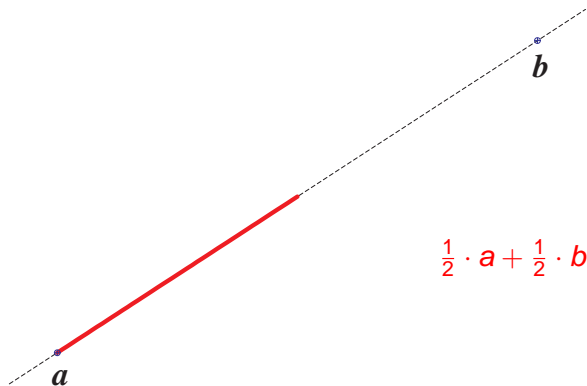
$$b = 0 \cdot a + 1 \cdot b = a + 1 \cdot (b - a)$$

Convex combination



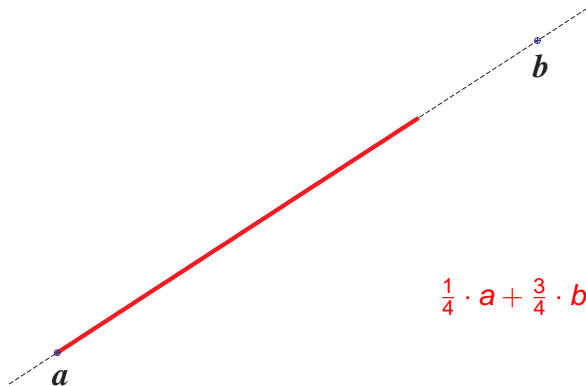
$$\frac{3}{4} \cdot a + \frac{1}{4} \cdot b = a + \frac{1}{4} \cdot (b - a)$$

Convex combination



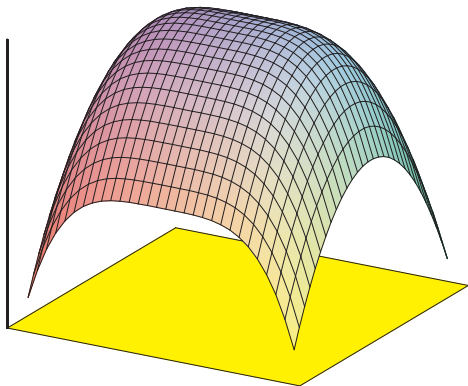
$$\frac{1}{2} \cdot a + \frac{1}{2} \cdot b = a + \frac{1}{2} \cdot (b - a)$$

Convex combination

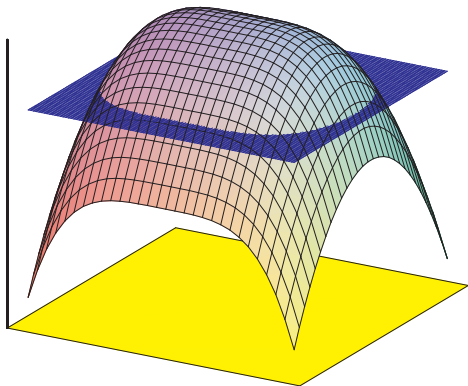


$$\frac{1}{4} \cdot a + \frac{3}{4} \cdot b = a + \frac{3}{4} \cdot (b - a)$$

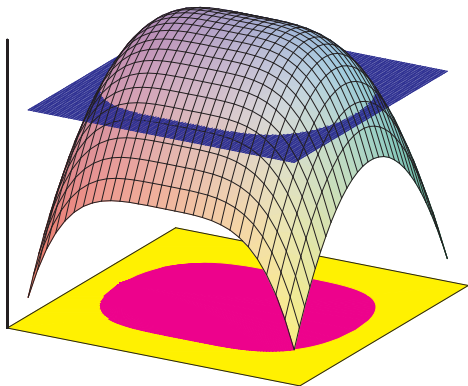
Level sets



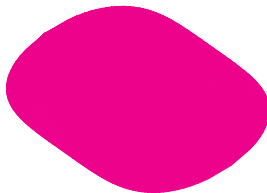
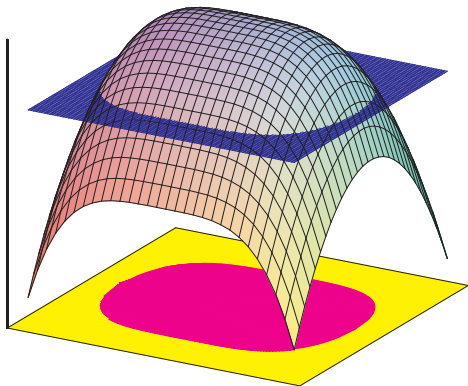
Level sets



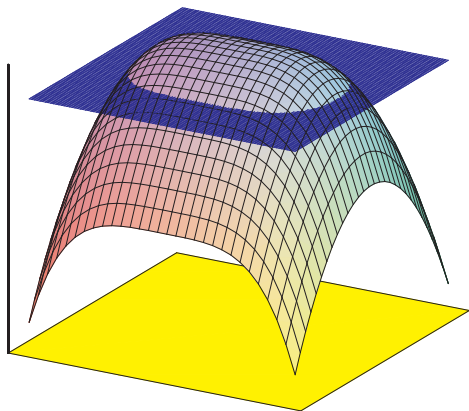
Level sets



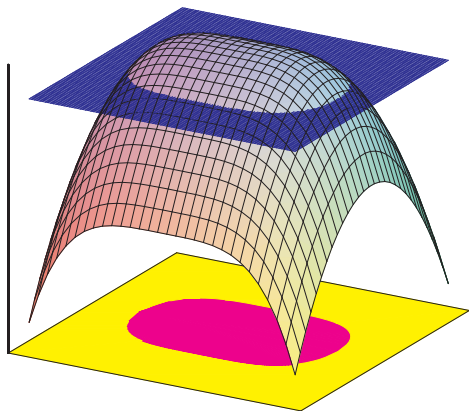
Level sets



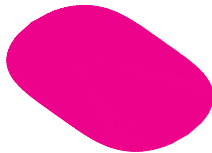
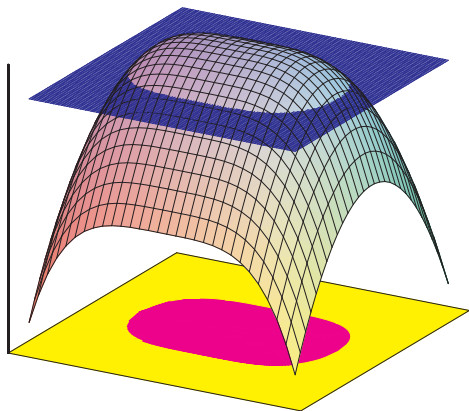
Level sets



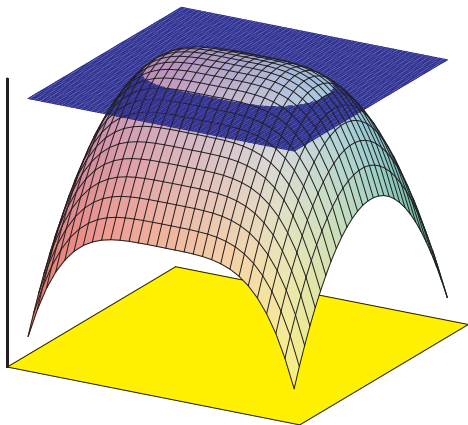
Level sets



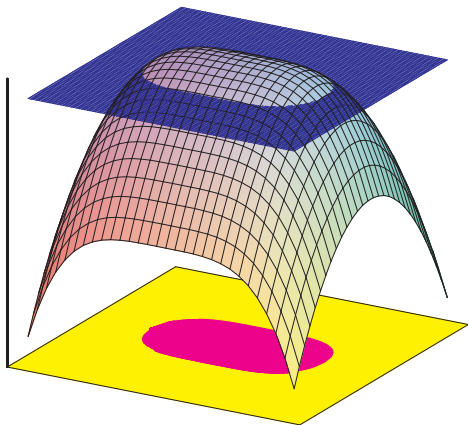
Level sets



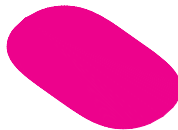
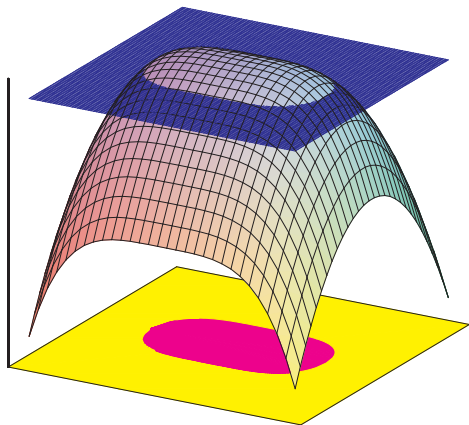
Level sets



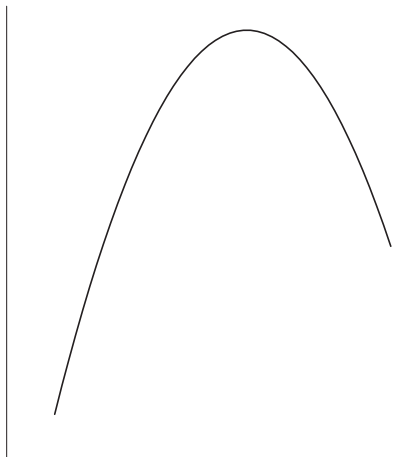
Level sets



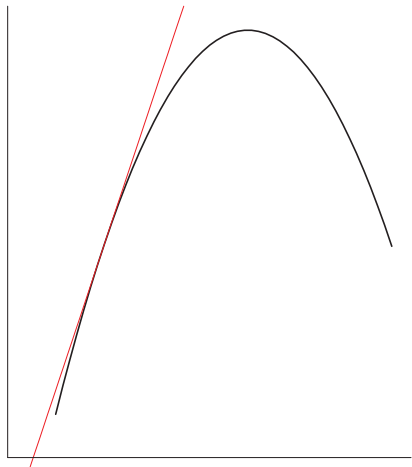
Level sets



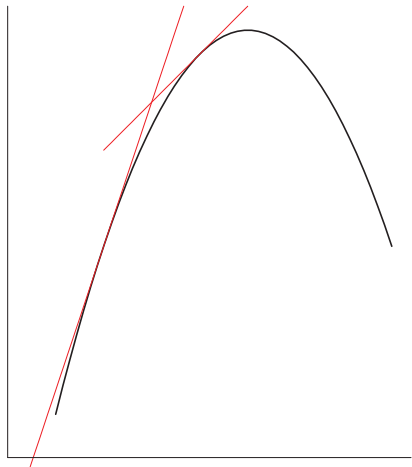
Characterization of C^1 convex functions – illustration



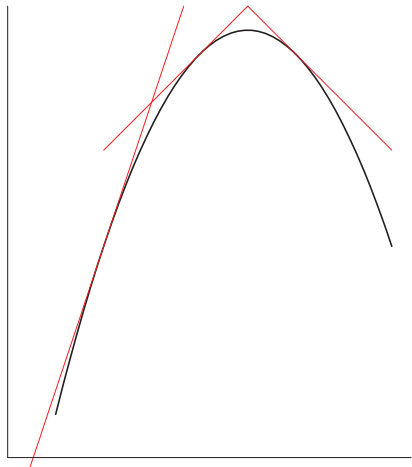
Characterization of C^1 convex functions – illustration



Characterization of C^1 convex functions – illustration



Characterization of C^1 convex functions – illustration



Characterization of C^1 convex functions – illustration

