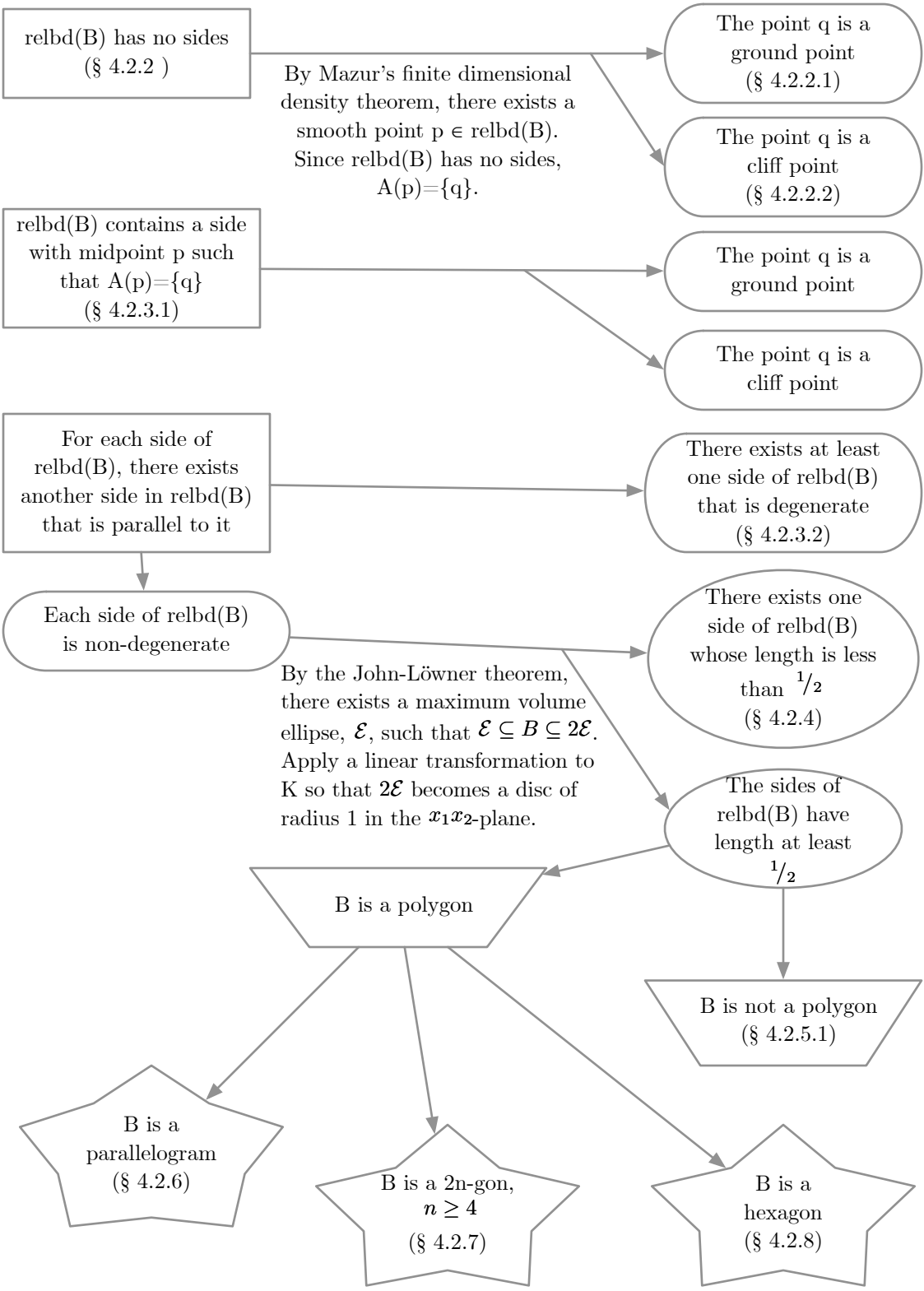
relbd(B) has no sides
(§ 4.2.2)
By Mazur's finite dimensional density theorem, there exists a smooth point p ∈ relbd(B). Since relbd(B) has no sides, A(p)={q}.
The point q is a ground point
(§ 4.2.2.1)
The point q is a cliff point
(§ 4.2.2.2)
relbd(B) contains a side with midpoint p such that A(p)={q}
(§ 4.2.3.1)
The point q is a ground point
The point q is a cliff point
For each side of relbd(B), there exists another side in relbd(B) that is parallel to it
There exists at least one side of relbd(B) that is degenerate
(§ 4.2.3.2)
Each side of relbd(B) is non-degenerate
By the John-Löwner theorem, there exists a maximum volume ellipse, $\mathcal{E}$, such that $\mathcal{E} \subseteq B \subseteq 2\mathcal{E}$. Apply a linear transformation to K so that $2\mathcal{E}$ becomes a disc of radius 1 in the x_1x_2-plane.
There exists one side of relbd(B) whose length is less than $1/2$
(§ 4.2.4)
The sides of relbd(B) have length at least $1/2$
B is a polygon
B is not a polygon
(§ 4.2.5.1)
B is a parallelogram
(§ 4.2.6)
B is a 2n-gon, $n \geq 4$
(§ 4.2.7)
B is a hexagon
(§ 4.2.8)