

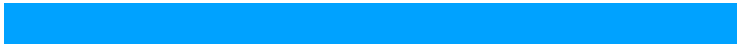
By the convexity of $\triangle ABC$, the triangle can be partitioned into the union of three triangles, namely

$$\triangle ABC = \triangle AB''C'' \cup \triangle B''C''B \cup \triangle BCC''.$$

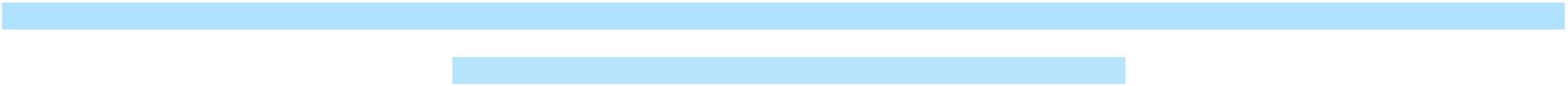
The additivity of defects implies that

$$\begin{aligned} d(\triangle ABC) &= d(\triangle AB''C'') + d(\triangle B''C''B) + d(\triangle BCC'') = d(\triangle ABC) + d(\triangle B''C''B) + d(\triangle BCC'') \\ &\Rightarrow 0 = d(\triangle B''C''B) + d(\triangle BCC''). \end{aligned}$$

Given that defects are always positive, the above equation leads to a contradiction. \square









A,



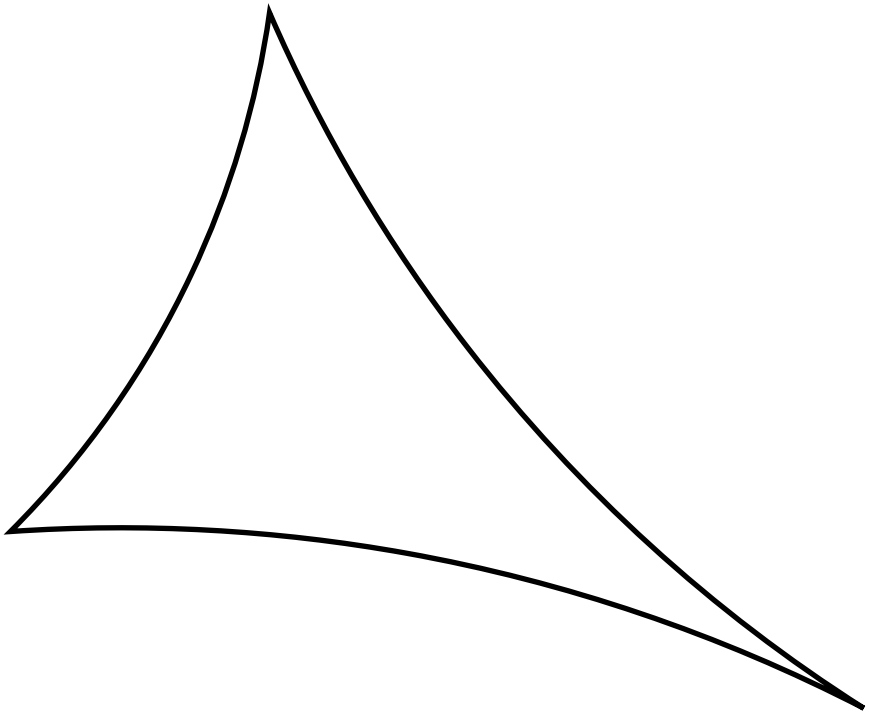


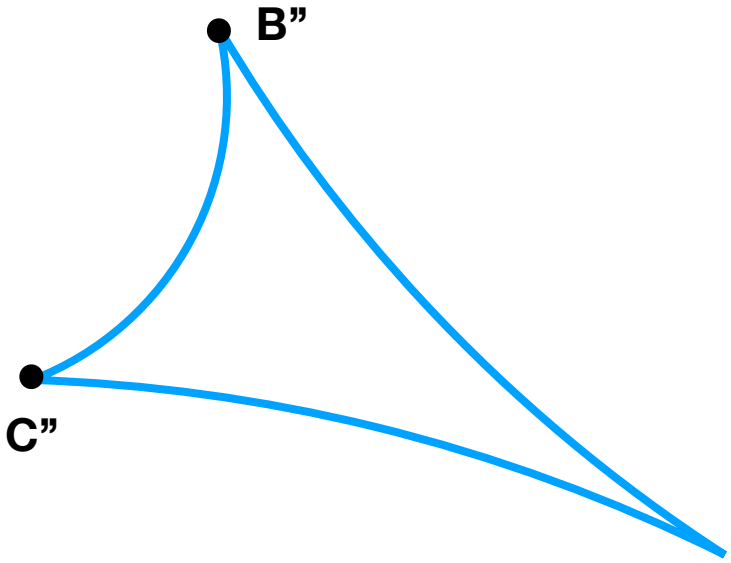
B,



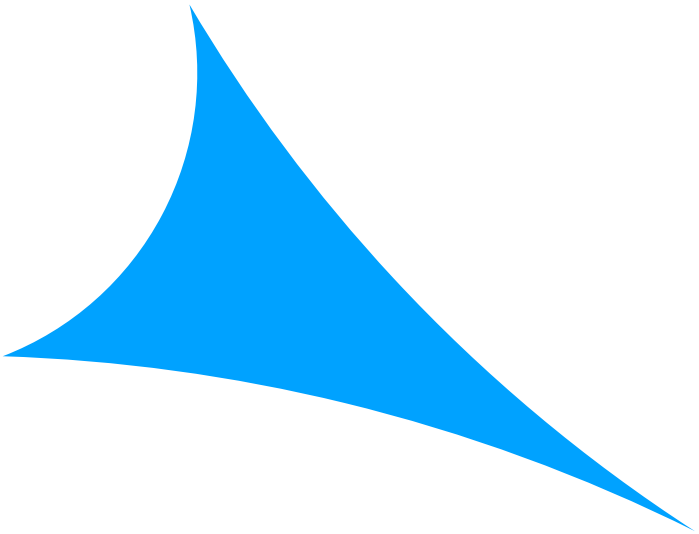


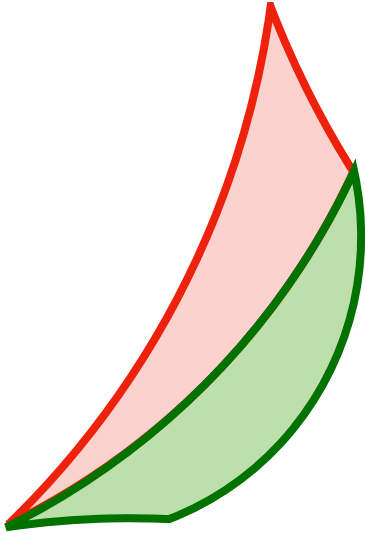
B







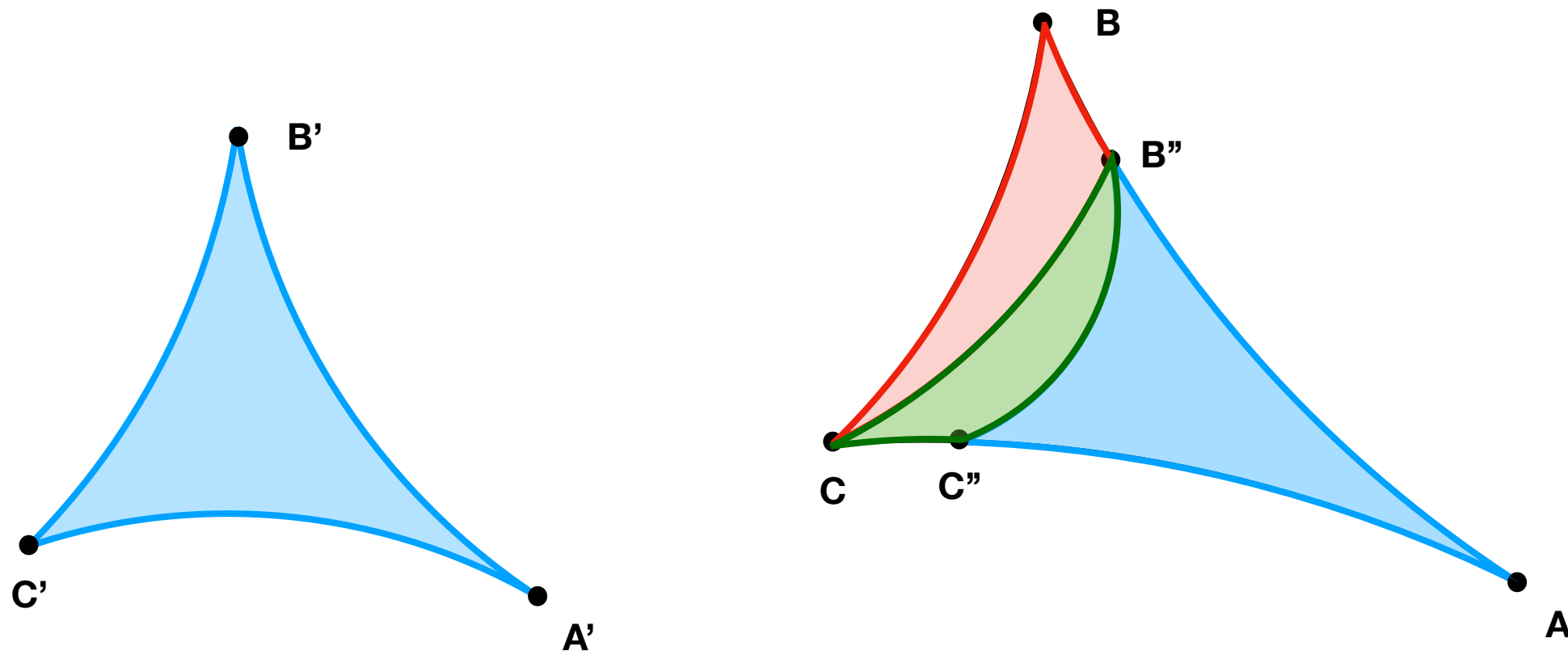




$$d(\triangle_{\text{blue}}) = d(\triangle_{\text{blue}}) + d(\triangle_{\text{green}}) + d(\triangle_{\text{red}})$$



A,



$$d(\triangle) = d(\triangle) + d(\triangle) + d(\triangle)$$

By the convexity of $\triangle ABC$, the triangle can be partitioned into the union of three triangles, namely

$$\triangle ABC = \triangle AB''C'' \cup \triangle B''C''B \cup \triangle BCC''.$$

The additivity of defects implies that

$$d(\triangle ABC) = d(\triangle AB''C'') + d(\triangle B''C''B) + d(\triangle BCC'') = d(\triangle ABC) + d(\triangle B''C''B) + d(\triangle BCC'')$$

$$\Rightarrow 0 = d(\triangle B''C''B) + d(\triangle BCC'').$$

Given that defects are always positive, the above equation leads to a contradiction.

□