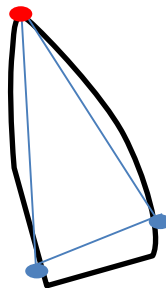


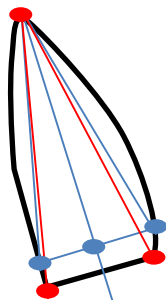
1

- # Automatically recognize Apex from edge points
- Step 1: **Find the largest triangle from edge points**
- Step 2: **Find Apex with the longest sum of two side lengths**



2

- # Automatically recognize b1, b2 from edge points
- Step 1: **Draw the dummy line to divide edge points into two groups**
- Step 2: **b1, b2 are the longest points from Apex in groups, respectively.**



Dummy line

Source: Pahlm O, Wagner GS: *Multimodal Cardiovascular Imaging: Principles and Clinical Applications*: www.accessmedicine.com

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Input: edge points of LV

1 Find the point of Apex cordis

2 Find the point of b1, b2

LV volume = $f(\text{Apex_cordis}, b1, b2, \text{edge points})$

f : Modified Simpson's Method*

* Goerke, R.J. and Carlsson, E., 1967.