Local Magnetic Anomaly

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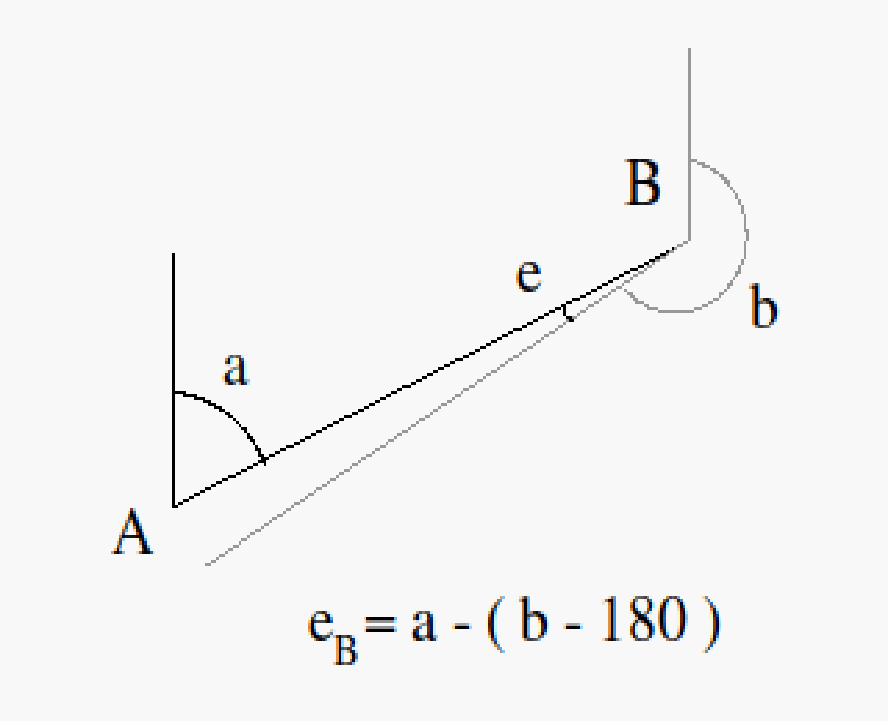
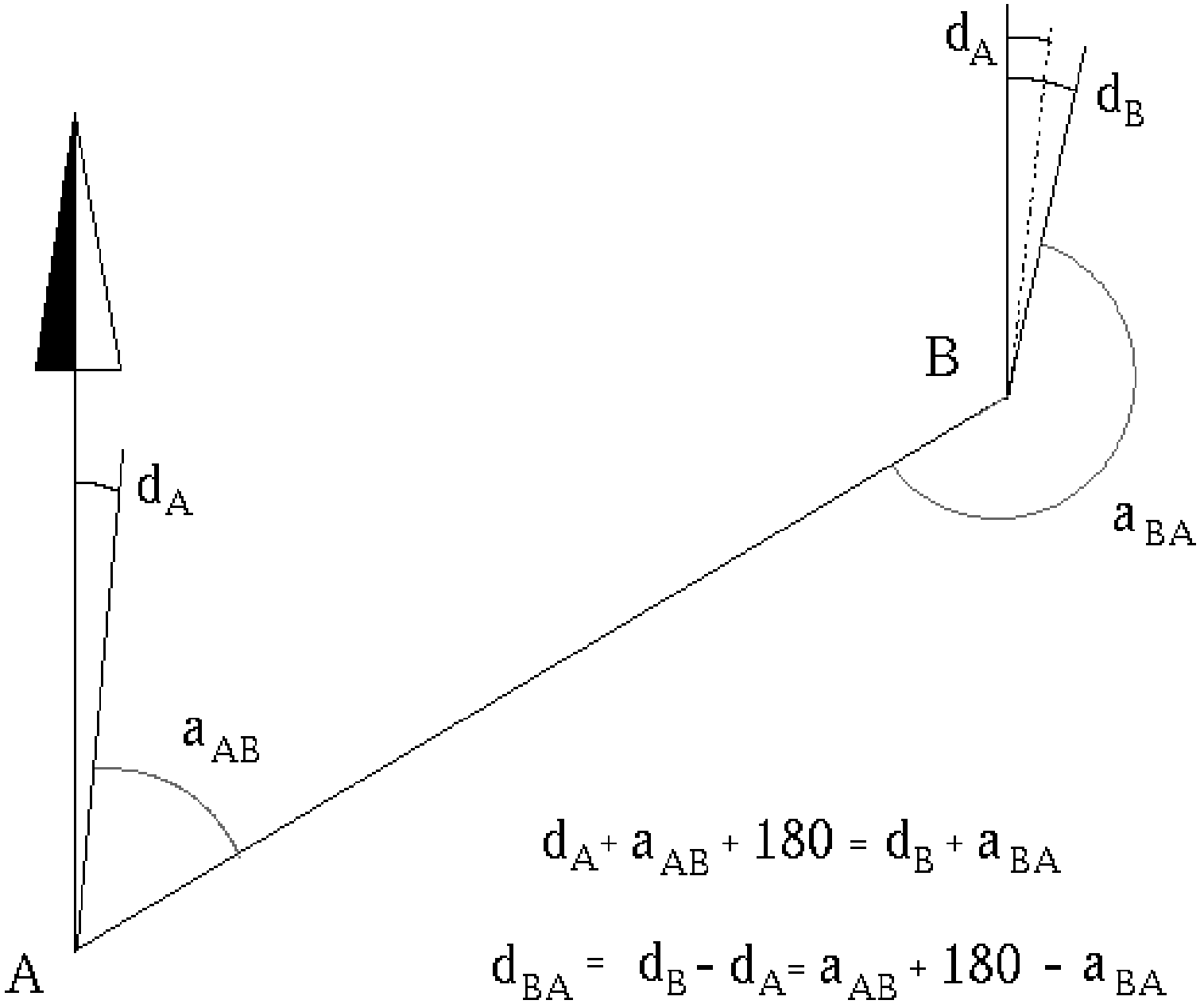
Magnetic Anomaly Howto

- Estimate the local magnetic declination correction at each station by comparing the azimuth to the previous station with the azimuth of the shot from the previous station



J. Halleck, “Foresight, backsight and surveying with magnetic anomalies”
http://www.cc.utah.edu/~nahaj/cave/survey/internal-angles_example.html

dA = declination at A with respect to the North
dBA = declination at B with respect to the magnetic North at A
dCA = dCB + dBA



$$d_A + a_{AB} + 180 = d_B + a_{BA}$$

$$d_{BA} = d_B - d_A = a_{AB} + 180 - a_{BA}$$

Magnetic Anomaly

- Surveying data procedure
  - Start at station A
  - Splays at A
  - Leg A-B
  - Move to station B
  - Leg B-A
  - Splays at B
  - Leg B-C
  - Move at station C
  - Etc.

Magnetic Anomaly settings

- Survey setting
  - Station policy “backsight”
  - Shot data setting: “magnetic anomaly”