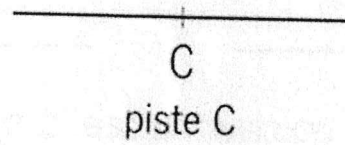
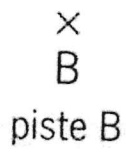


A3 - Geometrian peruskäsitteitä

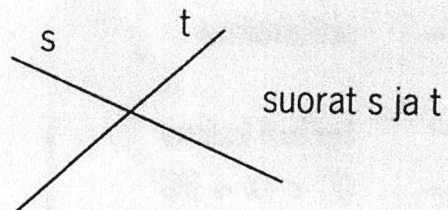
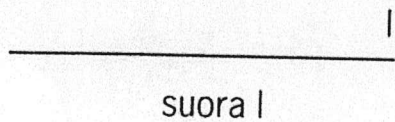
Piste



Viiva

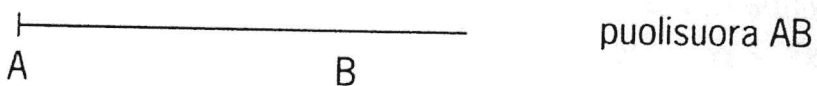


Suora

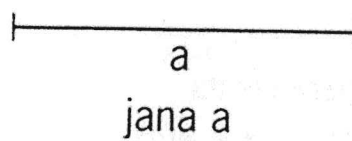
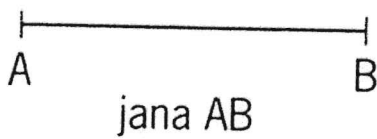


suorat s ja t leikkaavat pisteessä A

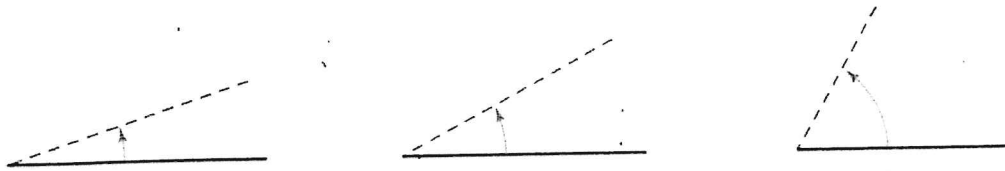
puolisuora



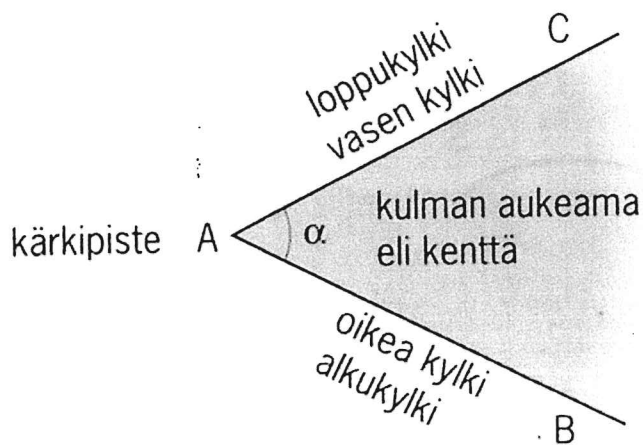
jana



Kulma



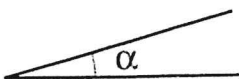
Kulman voidaan ajatella syntyvän siten, että toinen puolisuorista kiertyy tasossa alkupisteensä ympäri.



$$\begin{aligned}\text{kulma } A &= \sphericalangle A \\ &= \sphericalangle BAC \\ &= \alpha\end{aligned}$$



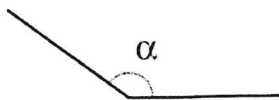
nollakulma



terävä kulma
 $0^\circ < \alpha < 90^\circ$



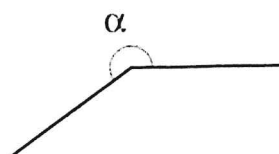
suorakulma
 90°



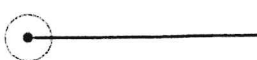
tylppä kulma
 $90^\circ < \alpha < 180^\circ$



oikokulma
 180°



kupera kulma
 $180^\circ < \alpha < 360^\circ$

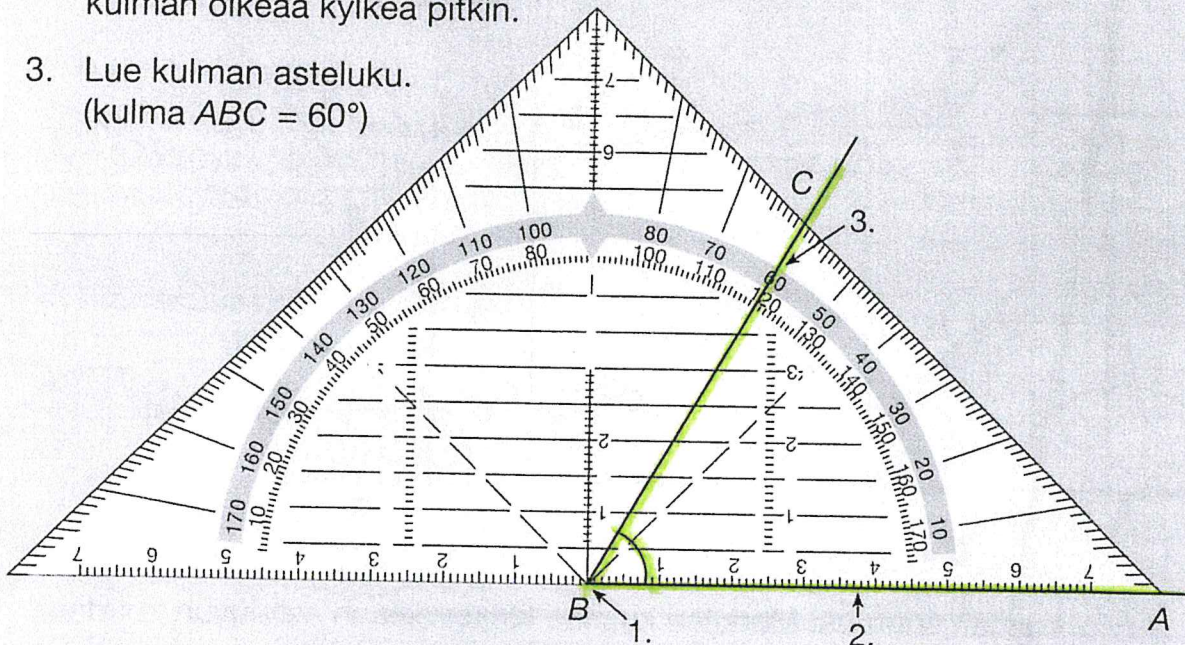


täysikulma
 360°

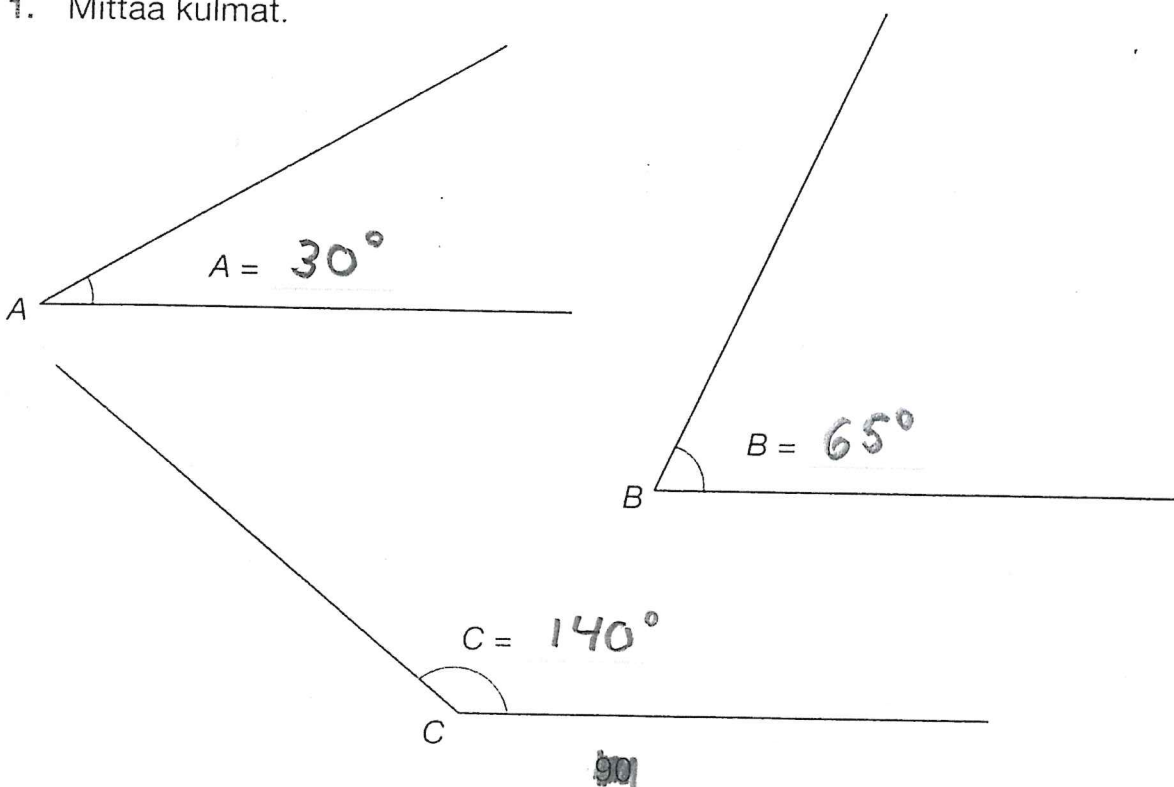
α alfa
 β beta
 γ gamma
 δ delta

Kulman mittaaminen piirtokolmiolla

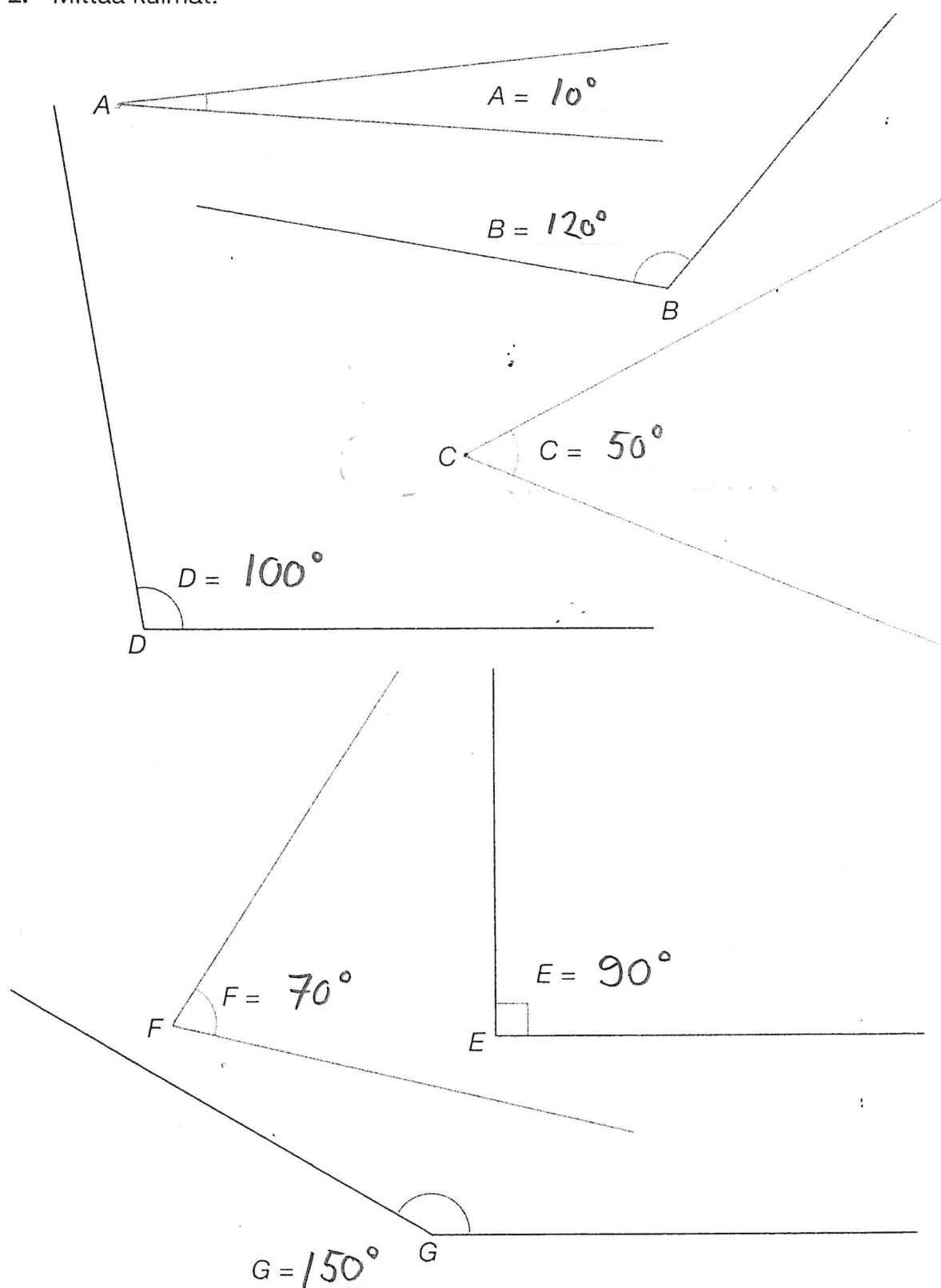
1. Aseta piirtokolmion nollapiste kulman kärkipisteeseen.
2. Aseta piirtokolmion pitkä sivu kulman oikeaa kylkeä pitkin.
3. Lue kulman asteluku.
(kulma $ABC = 60^\circ$)



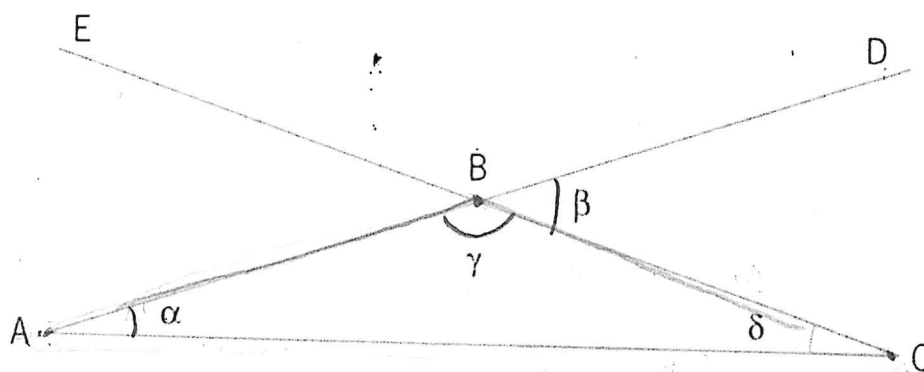
1. Mittaa kulmat.



2. Mittaa kulmat.



10. Nimeä kolmea kirjainta käyttäen kulmat α , β , γ ja δ .



α alfa β beeta γ gamma δ delta

$$\alpha = \angle CAB$$

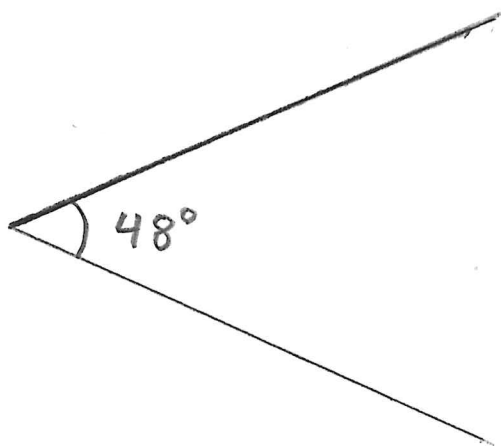
$$\beta = \angle CBD$$

$$\gamma = \angle ABC$$

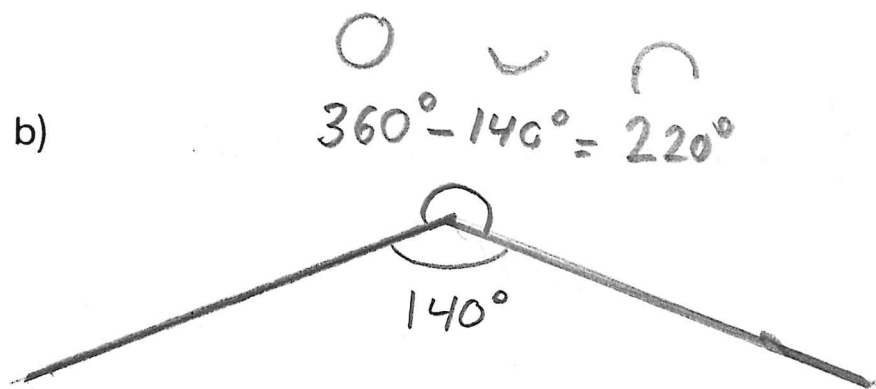
$$\delta = \angle BCA$$

5. Mittaa kulman astelukku.

a)

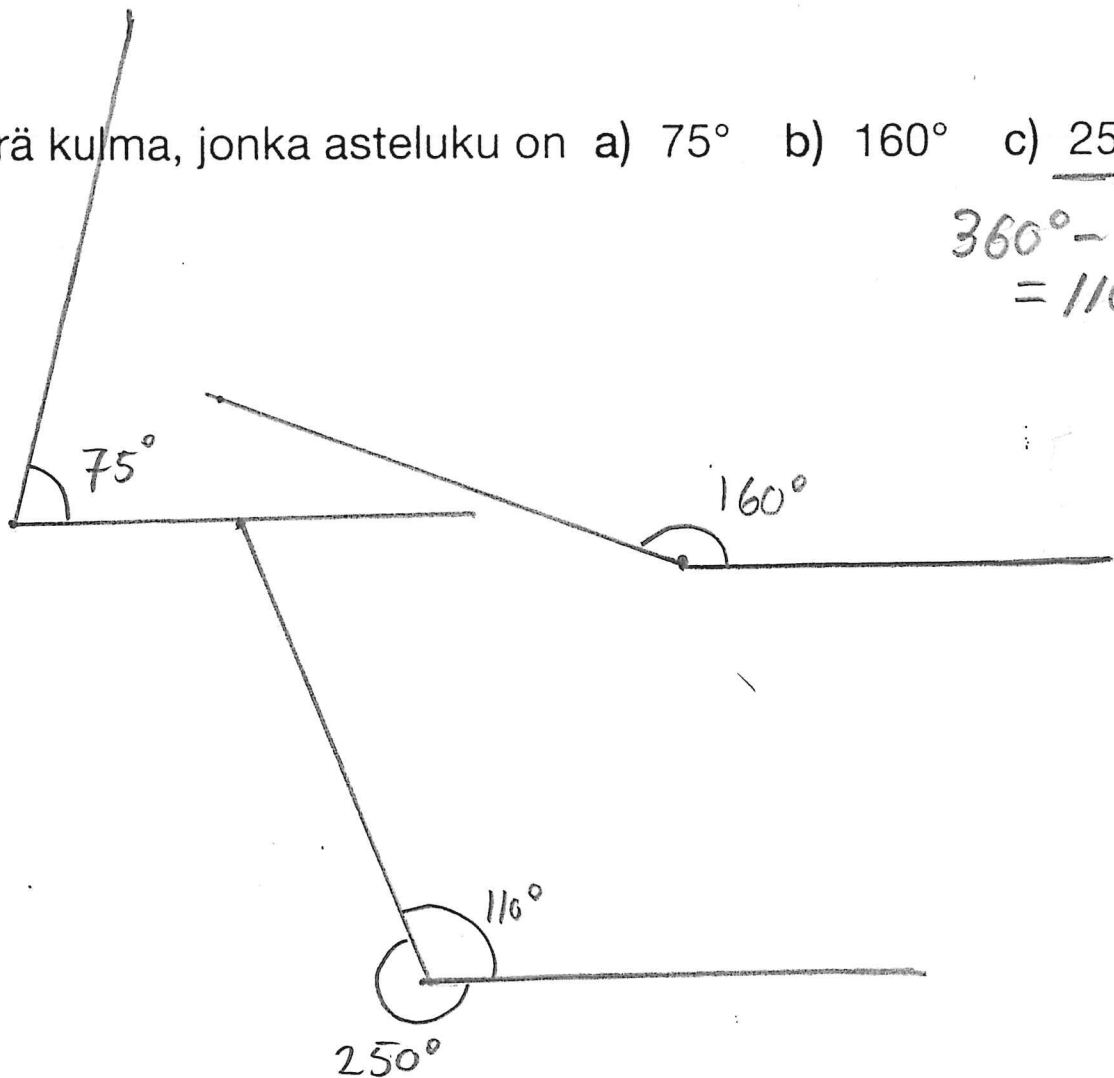


b)



16. Piirrä kulma, jonka asteluku on a) 75° b) 160° c) 250° .

$$360^\circ - 250^\circ = 110^\circ$$



17. Mittaa viisikulmion ABCDE kulmat ja laske niiden summa.

$$\begin{array}{r} 30 \\ 140 \\ 130 \\ 40 \\ + 200 \\ \hline 540 \end{array}$$

