Driehoeke:

1. Bewys dat $\triangle$ AOB $\equiv$ $\triangle$ DOC deur die volgende te voltooi:

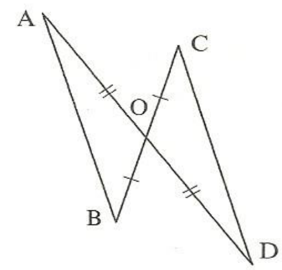
In $\triangle^e$ AOB en DOC:
1. $AO = \ldots\ldots$ $(\ldots\ldots)$
2. $BO = \ldots\ldots$ $(\ldots\ldots)$
3. $A\hat{O}B = \ldots\ldots$ $(\ldots\ldots)$

$\therefore$ $\triangle$ AOB $\equiv$ $\triangle$ ...... $(\ldots\ldots)$

$\therefore$ $\hat{A} = \ldots\ldots$

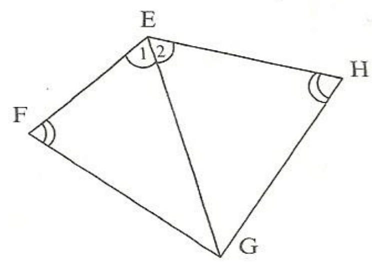
$\hat{B} = \ldots\ldots$

$AB = \ldots\ldots$

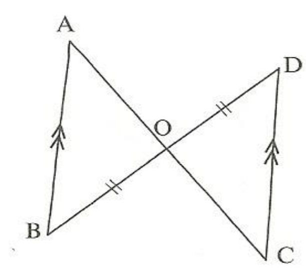


2. In die figuur is $\hat{E}_1 = \hat{E}_2$ en $\hat{H} = \hat{F}$

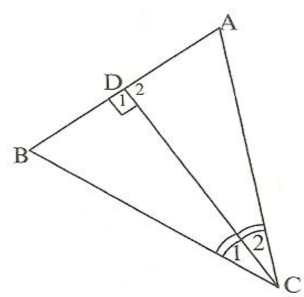
Bewys: $\triangle$ FEG $\equiv$ $\triangle$ HEG



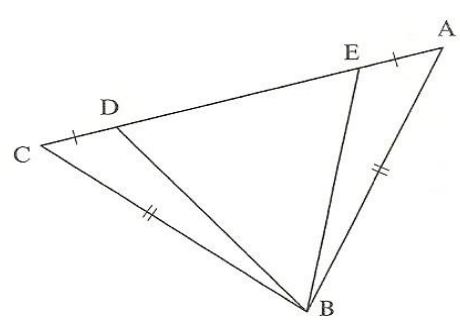
3. Bewys: (*a*) $\triangle$ AOB $\equiv$ $\triangle$ COD
(*b*) AB = DC



4. Bewys: AD = DB deur kongruensie te gebruik.
$(\hat{C}_1 = \hat{C}_2)$



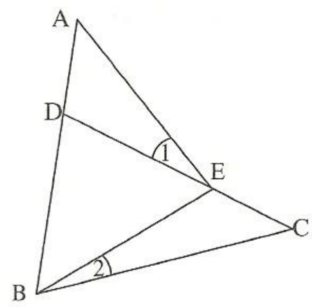
5. (*a*) Watter soort driehoek is $\triangle$ ABC?
(*b*) Bewys dat: $\triangle$ ABE $\equiv$ $\triangle$ CBD
(*c*) Bewys dat: $B\hat{E}D = B\hat{D}E$



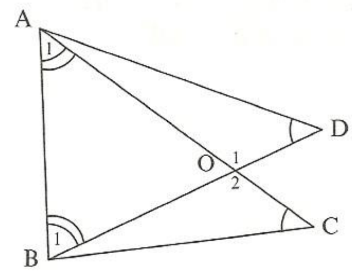
6. In die figuur is $\triangle$ DBE 'n **gelyksydige driehoek**.

$\hat{1} = \hat{2}$

Bewys: (*a*) $\triangle$ ABE $\equiv$ $\triangle$ CDB
(*b*) AD = EC



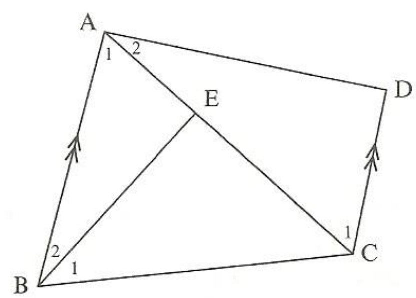
7. Bewys: (*a*) $\triangle$ ABD $\equiv$ $\triangle$ BAC
(*b*) $\triangle$ AOD $\equiv$ $\triangle$ BOC



8. In die figuur is:

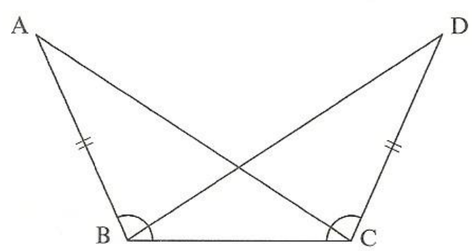
AB = AC en DC = AE.

Bewys: (*a*) $\triangle$ ACD $\equiv$ $\triangle$ BAE
(*b*) $B\hat{A}D = B\hat{E}C$



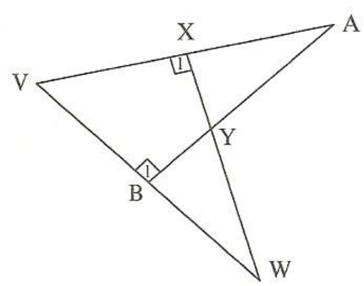
9. As AB = DC en $A\hat{B}C = D\hat{C}B$,

bewys nou dat: AC = DB.

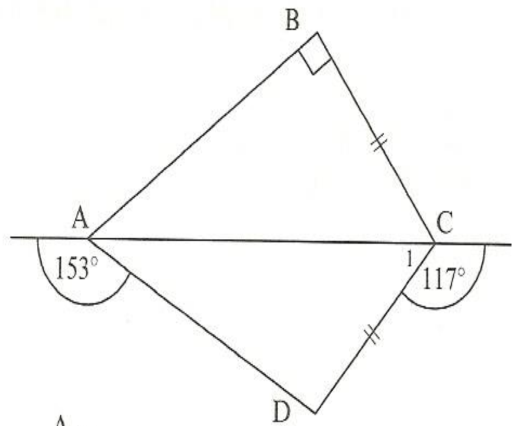


10. As AB = XW, $V\hat{X}W = 90° = A\hat{B}V$,

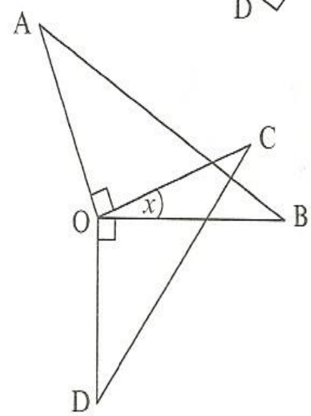
bewys: $\triangle$ ABV $\equiv$ $\triangle$ WXV



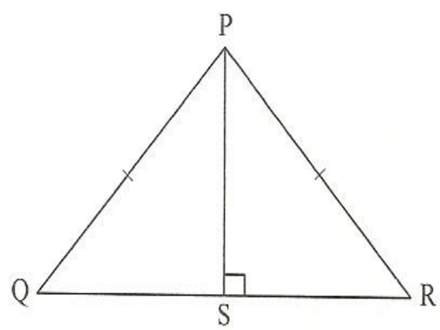
11. Gebruik die figuur en bewys:
AB = AD



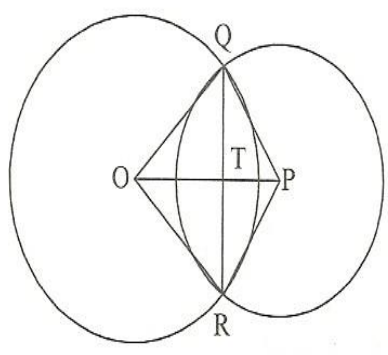
12. In die figuur is:
AO = OC en OD = OB
Bewys: AB = DC



13. Bewys die stelling: Die basishoeke van 'n gelykbenige driehoek is gelyk.



14. O en P is die middelpunte van die 2 sirkels wat sny in Q en R:
(*a*) Bewys dat $Q\hat{P}O = R\hat{P}O$.
(*b*) Bewys dat OP halveer vir QR in T.



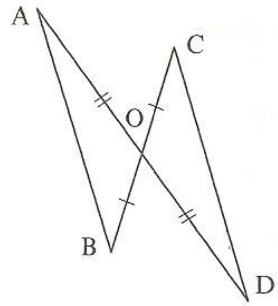
Memo:

1. In $\triangle^e$ AOB en DOC:

1. $AO = OD$ (gegee)
2. $BO = OC$ (gegee)
3. $A\hat{O}B = C\hat{O}D$ (regoorstaande $\angle^e$)

$\triangle$ AOB $\equiv$ $\triangle$ DOC (S, $\angle$, S)

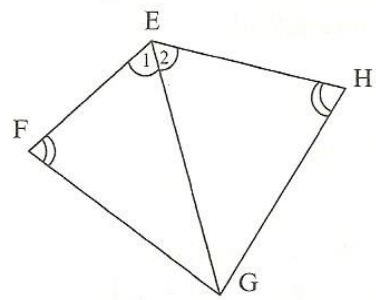
$\therefore$ $\hat{A} = \hat{D}$
$\hat{B} = \hat{C}$
$AB = CD$



2. In $\triangle^e$ FEG en HEG:

1. $\hat{E}_1 = \hat{E}_2$ (gegee)
2. $\hat{F} = \hat{H}$ (gegee)
3. EG is gemeen

$\therefore$ $\triangle$ FEG $\equiv$ $\triangle$ HEG ($\angle$, $\angle$, S)

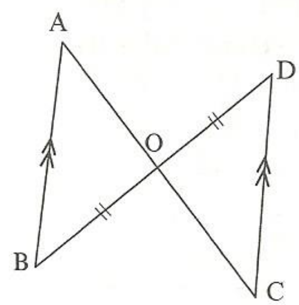


3. (*a*) In $\triangle^e$ AOB en COD

1. $BO = OD$ (gegee)
2. $\hat{A} = \hat{C}$ (verwis. $\angle^e$, AB $\parallel$ CD)
3. $\hat{B} = \hat{D}$ (verwis. $\angle^e$, AB $\parallel$ CD)

$\therefore$ $\triangle$ AOB $\equiv$ $\triangle$ COD ($\angle$, $\angle$, S)

(*b*) Uit kongruensie: AB = CD

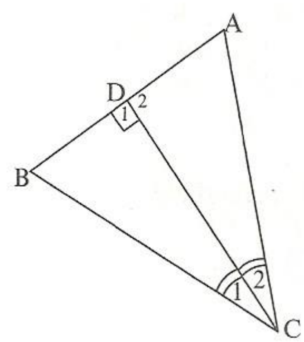


4. In $\triangle^e$ ACD en BCD:

1. $\hat{C}_1 = \hat{C}_2$ (gegee)
2. CD is gemeen
3. $\hat{D}_1 = \hat{D}_2$ (= 90°; ADB is gestrekte $\angle$)

$\therefore$ $\triangle$ ACD $\equiv$ $\triangle$ BCD ($\angle$, $\angle$, S)

$\therefore$ AD = BD



5. (*a*) $\triangle$ ABC: gelykbenige $\triangle$: $\hat{A} = \hat{C}$

(*b*) In $\triangle^e$ ABE en CBD:

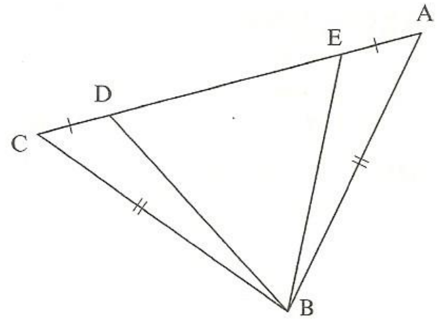
1. $\hat{A} = \hat{C}$ (BA = BC)
2. $CD = AE$ (gegee)
3. $BC = BA$ (gegee)

$\therefore \triangle$ ABE $\equiv \triangle$ CBD (S, $\angle$, S)

(*c*) Uit kongruensie: BE = BD

$\therefore B\hat{D}E = B\hat{E}D$

(basishoeke van gelykbenige $\triangle$ BED)



---

6. (*a*) In $\triangle^e$ ABE en CDB:

1. $BE = DB$ ($\triangle$ DBE; gelyksydig)
2. $B\hat{D}C = A\hat{B}E$ (= 60°; gelyksydige $\triangle$)
3. $A\hat{E}B = D\hat{B}C$ (60° + $\hat{1}$ = 60° + $\hat{2}$)

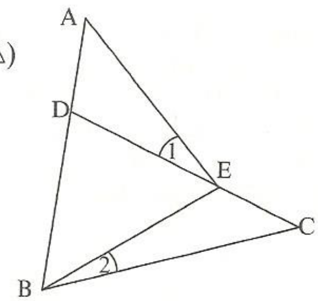
$\therefore \triangle$ ABE $\equiv \triangle$ CDB ($\angle$, $\angle$, S)

(*b*) Uit kongruensie:

$AB = DC$

$\therefore AB - DB = DC - DE$ (gelyksydige $\triangle$)

$\therefore AD = EC$



---

7. (*a*) In $\triangle^e$ ABD en BAC:

1. AB is gemeen
2. $\hat{A}_1 = \hat{B}_1$ (gegee)
3. $\hat{C} = \hat{D}$ (gegee)

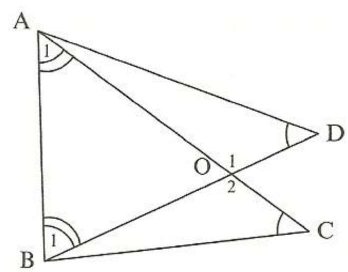
$\therefore \triangle$ ABD $\equiv \triangle$ BAC ($\angle$, $\angle$, S)

(*b*) Uit kongruensie: AD = BC

In $\triangle^e$ AOD en BOC:

1. $AD = BC$ (Uit kongruensie in (*a*))
2. $\hat{D} = \hat{C}$ (gegee)
3. $\hat{O}_1 = \hat{O}_2$ (Regoorst. $\angle^e$)

$\therefore \triangle$ AOD $\equiv \triangle$ BOC ($\angle$, $\angle$, S)



---

8. (*a*) In $\triangle^e$ ABE en ACD:

1. $AB = AC$ (gegee)
2. $\hat{A}_1 = \hat{C}_1$ (verwis. L^e AB $\parallel$ CD)
3. $AE = CD$ (gegee)

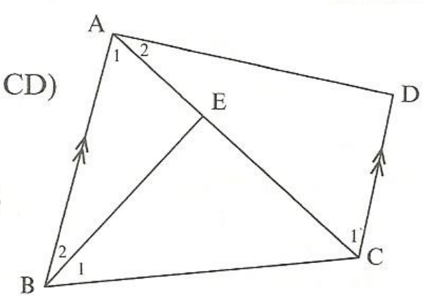
$\therefore \triangle$ ABE $\equiv \triangle$ CAD (S, $\angle$, S)

(*b*) $\hat{A}_2 = \hat{B}_2$ (uit kongruensie in (*a*))

$\therefore B\hat{A}D = \hat{A}_1 + \hat{A}_2$

$B\hat{E}C = \hat{A}_1 + \hat{B}_2$ (Buite $\angle$ van $\triangle$ *ABE*)

$\therefore B\hat{A}D = B\hat{E}C$



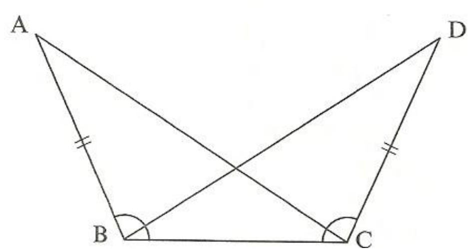
---

9. In $\triangle^e$ ABC en DCB:

1. $AB = CD$ (gegee)
2. $A\hat{B}C = D\hat{C}B$ (gegee)
3. BC is gemeen

$\therefore \triangle$ ABC $\equiv \triangle$ DCB (S, $\angle$, S)

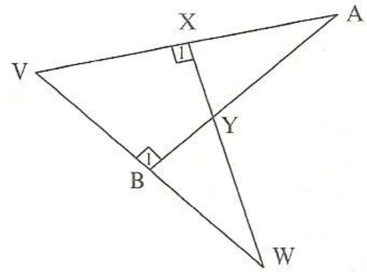
$\therefore$ AC = DB (uit kongruensie)



10. In $\triangle^e$ ABV en WXV:

1. $AB = XW$ (gegee)
2. $\hat{V}$ is gemeen
3. $\hat{X}_1 = \hat{B}_1$ ($= 90^\circ$ gegee)

$\therefore \triangle ABV \equiv \triangle WXV$ ($\angle, \angle$, S)



---

11. $\hat{C}_1 = 63^\circ$ (gestrekte $\angle$)

$\hat{D} = 153 - 63^\circ$ (Buite $\angle$ van $\triangle$ ACD)

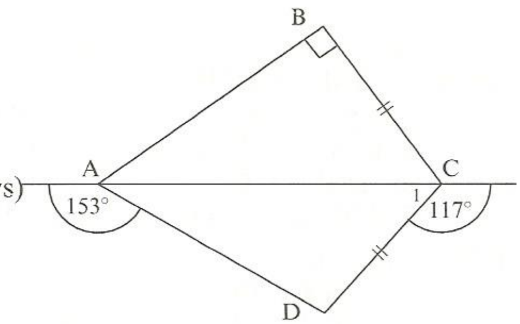
$= 90^\circ$

In $\triangle^e$ ABC en ADC:

1. AC is gemeen
2. $\hat{B} = \hat{D}$ ($= 90^\circ$, gegee en bewys)
3. $BC = CD$ (gegee)

$\therefore \triangle ABC \equiv \triangle ADC$ (90°, sks, sy)

$\therefore$ AB = AD (uit kongruensie)



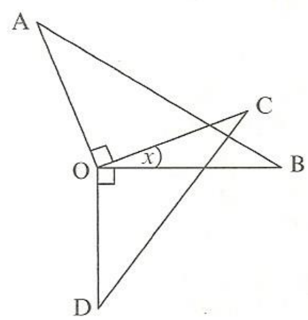
---

12. In $\triangle^e$ AOB en COD:

1. $AO = OC$ (gegee)
2. $OB = OD$ (gegee)
3. $A\hat{O}B = C\hat{O}D$ (elkeen: $90^\circ + x$)

$\therefore \triangle AOB \equiv \triangle COD$ (S, $\angle$, S)

$\therefore$ AB = CD (uit kongruensie)



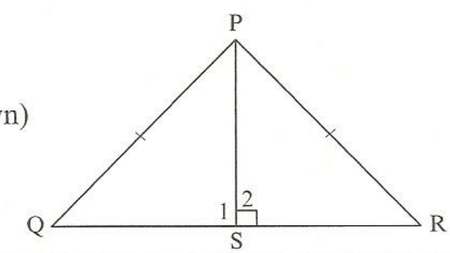
---

13. In $\triangle^e$ PQS en PRS:

1. $PQ = PR$ (gegee)
2. PS is gemeen
3. $\hat{S}_1 = \hat{S}_2$ ($= 90^\circ$, QSR reguit lyn)

$\therefore \triangle PQS \equiv \triangle PRS$ (90°; Sks; sy)

$\therefore \hat{Q} = \hat{R}$ (uit kongruensie)



---

14. (*a*) In $\triangle^e$ POQ en POR:

1. $PQ = PR$ (radii klein $\odot$)
2. $OQ = PR$ (radii groot $\odot$)
3. OP is gemeen

$\therefore \triangle POQ \equiv \triangle POR$ (S, S, S)

$\therefore Q\hat{P}O = R\hat{P}O$ (uit kongruensie)

(*b*) In $\triangle^e$ PQT en PRT:

1. $PQ = PR$ (radii klein $\odot$)
2. PT is gemeen
3. $Q\hat{P}T = R\hat{P}T$ (bewys in (*a*))

$\therefore \triangle PQT \equiv \triangle PRT$ (S, $\angle$, S)

$\therefore$ QT = TR

$\therefore$ OP halveer QR in T