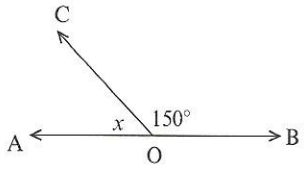
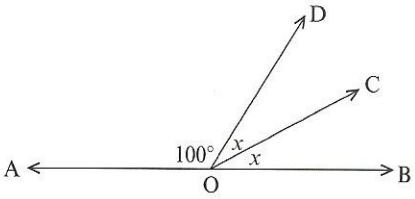
Lyne en Hoeke:

1. Bereken die onbekendes in elk van die volgende **(volledig met redes)**:

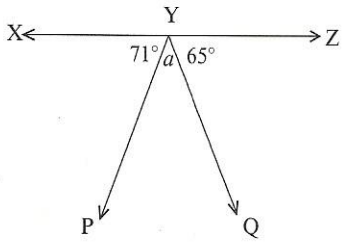
1.1



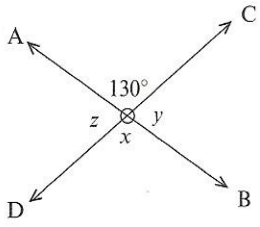
1.2



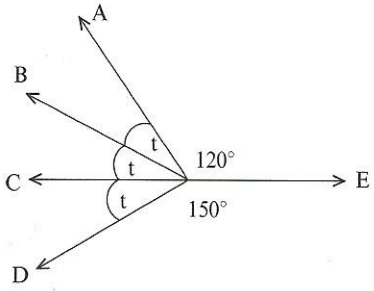
1.3



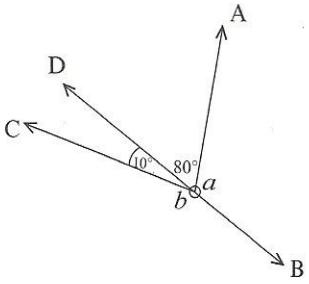
1.4



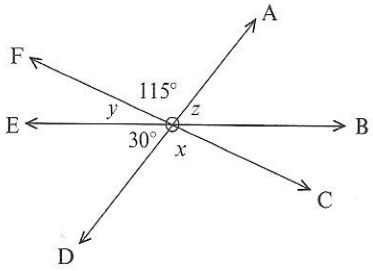
1.5



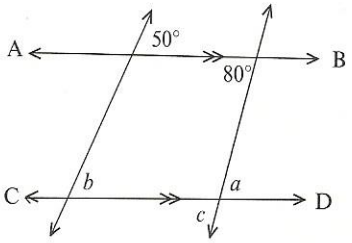
1.6



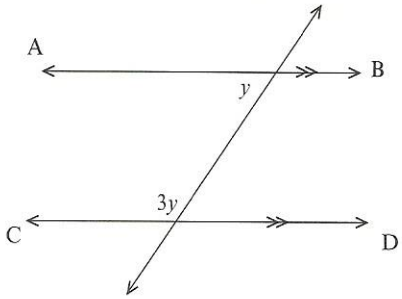
1.7



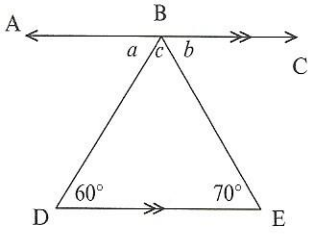
1.8



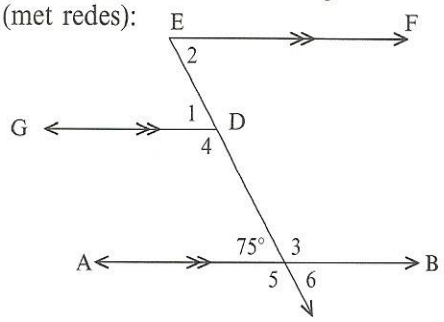
1.9



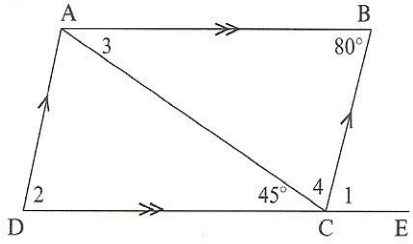
1.10



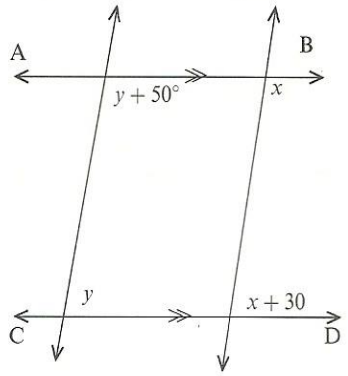
2. Bereken $\hat{1} - \hat{6}$ in hierdie volgorde (met redes):



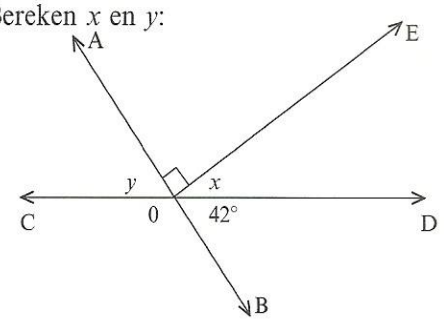
3. Bereken $\hat{1} - \hat{4}$ (volledig met redes):



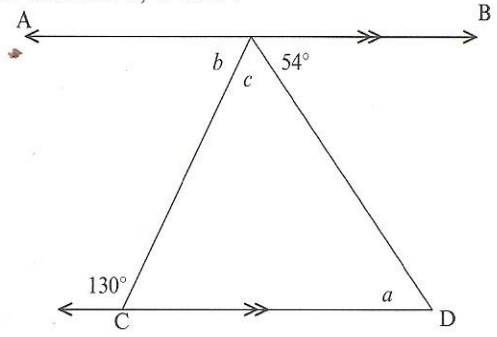
4. Bereken x en y in die figuur:



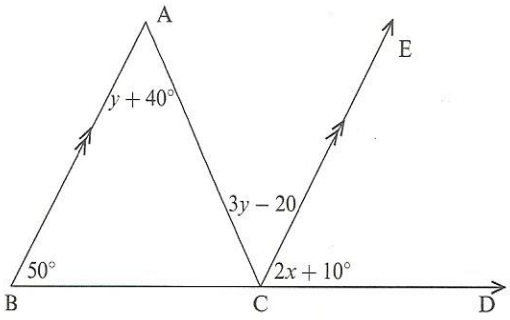
5. Bereken x en y:



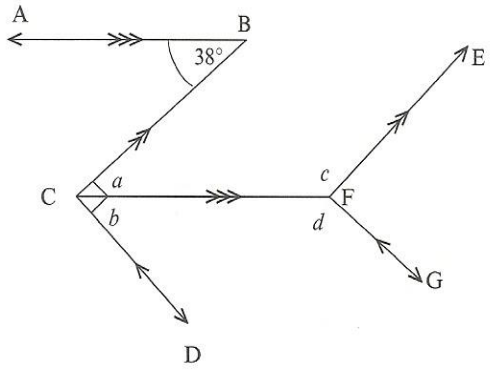
6. Bereken a; b en c :



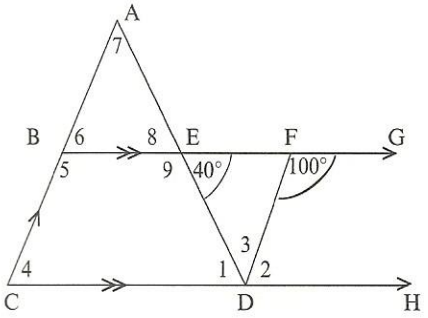
7. Los op vir x en y (met redes):



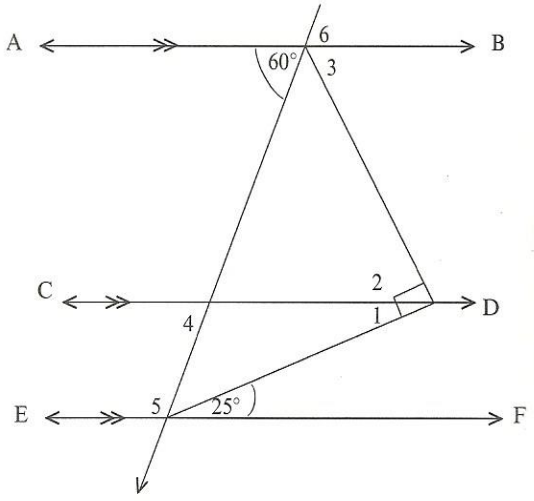
8. Bereken a; b; c; d; (met redes):



9. Bereken die hoeke gemerk $\hat{1} - \hat{9}$ (met redes):



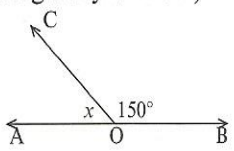
10. Bereken (met redes) $\hat{1} - \hat{6}$:



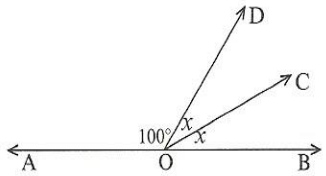
Memo

1.1 $x + 150° = 180°$ (Reguit lyn: AOB)

$x = 30°$



1.2

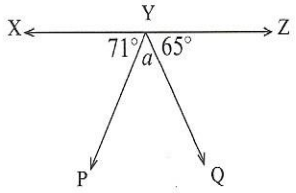


$100° + x + x = 180°$ (Reguit lyn: AOB)

$2x = 80°$

$x = 40°$

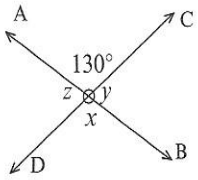
1.3



$71° + a + 65° = 180°$ (Reguit lyn: XYZ)

$a = 44°$

1.4



$x = 130°$ (Regoorst. $\angle^e$)

$130° + y = 180°$ (Reguit lyn: AOB)

$y = 50°$

$z = 50°$ (Regoorst. $\angle^e$)

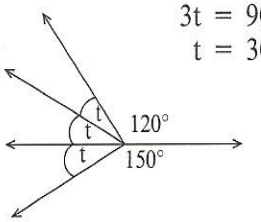
1.5

$3t + 120° + 150° = 360°$ (omwenteling)

$3t = 360° - 120° - 140°$

$3t = 90°$

$t = 30°$

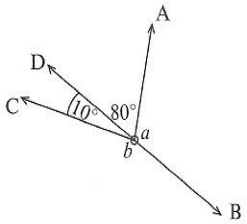


1.6 $a + 80° = 180°$ (Reguit lyn: BOD)

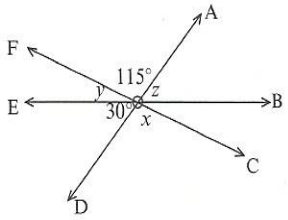
$a = 100°$

$b + 10° = 180°$ (Reguit lyn: BOD)

$b = 170°$



1.7



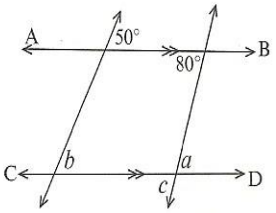
$x = 115°$ (Regoorst. $\angle^e$)

$115° + y + 30° = 180°$ (Reguit lyn: AOD)

$y = 35°$

$z = 30°$ (Regoorst. $\angle^e$)

1.8



$a = 80°$ (Verwis. $\angle^e$; AB||CD)

$b = 50°$ (Ooreenkomstige $\angle^e$; AB||CD)

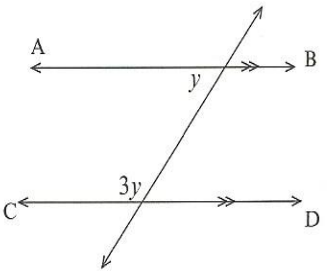
$c = 80°$ (Regoorst. $\angle^e$ met a)

1.9

$y + 3y = 180°$ (Ko-binne $\angle^e$; AB||CD)

$4y = 180°$

$y = 45°$

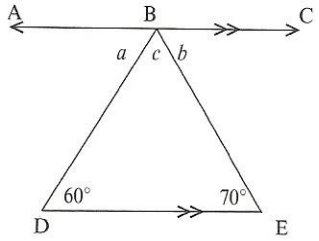


1.10 $a = 60°$ (Verwis. $\angle^e$, AC||DE)

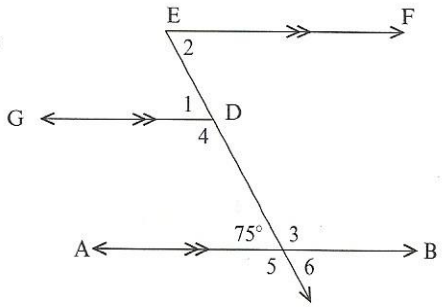
$b = 70°$ (Verwis. $\angle^e$, AC||DE)

$c + a + b = 180°$ (Reguit lyn: ABC)

$\therefore\ c = 50°$



2.



$\hat{1} = 75°$ (Ooreenk. $\angle^e$ GD||AB)

$\hat{2} = \hat{1}$ (Verwis. $\angle^e$, EF||GD)

$= 75°$

$\hat{3} + 75° = 180°$ (AB: reguit lyn)

$\hat{3} = 105°$

$\hat{4} + 75° = 180°$ (Ko-binne $\angle^e$, GD||AB)

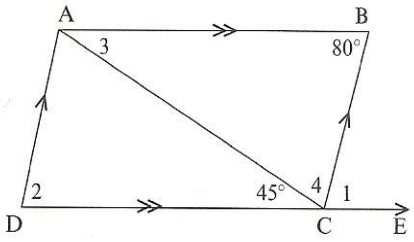
$= 105°$

$\hat{5} = \hat{4}$ (Ooreenk. $\angle^e$, GD||AB)

$= 105°$

$\hat{6} = 75°$ (Regoorst. $\angle^e$)

3.



$\hat{1} = 80°$ (Verwis. $\angle^e$, AB||DE)

$\hat{2} = \hat{1}$ (Ooreenk. $\angle^e$, AD||BC)

$= 80°$

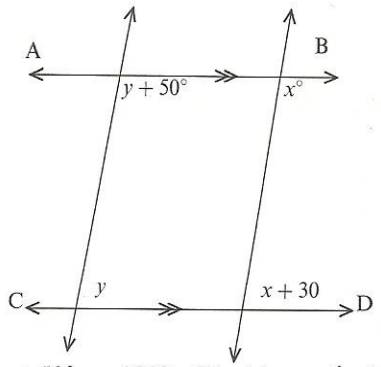
$\hat{3} = 45°$ (Verwis. $\angle^e$, AB||DC)

$\hat{4} + 45° + \hat{1} = 180°$ (Reguit lyn: DE)

$\therefore\ \hat{4} + 45° + 80° = 180°$

$\therefore\ \hat{4} = 55°$

4.



$y + y + 50° = 180°$ (Ko-binne $\angle^e$, AB||DC)

$2y = 130°$

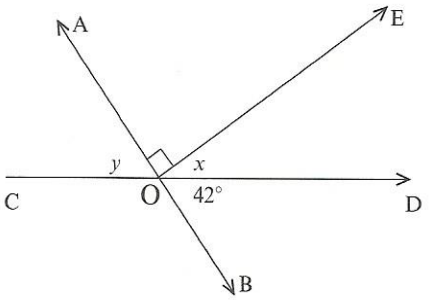
$y = 65°$

$x + x + 30° = 180°$ (Ko-binne $\angle^e$, AB||CD)

$\therefore\ 2x = 150°$

$x = 75°$

5.

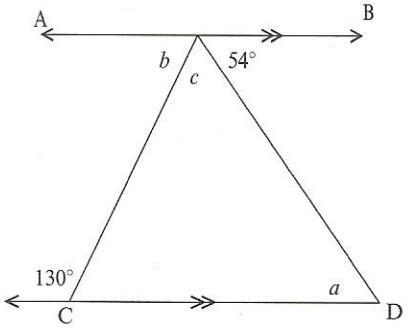


$90° + x + 42° = 180°$ (Reguitlyn: AOB)

$x = 48°$

$y = 42°$ (Regoorst. $\angle^e$)

6.



$a = 54°$ (Verwis. $\angle^e$, AB||CD)

$b + 130° = 180°$ (Ko-binne $\angle^e$, AB||CD)

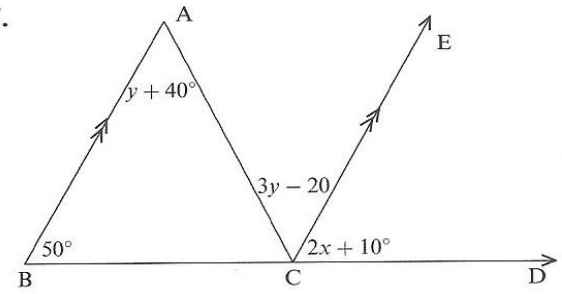
$b = 50°$

$c + b + 54° = 180°$ (Reguitlyn: AB)

$c + 50° + 54° = 180°$

$c = 76°.$

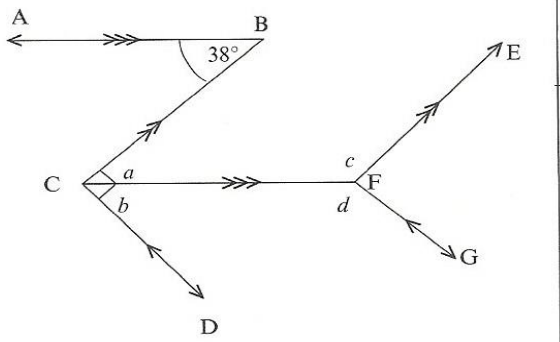
7.



$2x + 10° = 50°$ (Ooreenk. $\angle^e$ AB||CE)
$2x = 50° - 10°$
$2x = 40°$
$x = 20°$

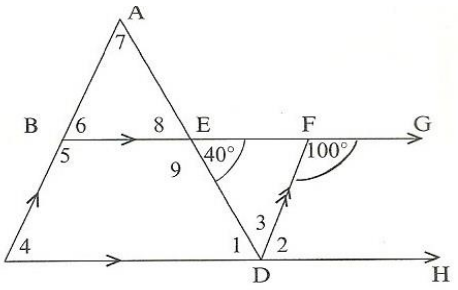
$3y - 20° = y + 40°$ (Verw. $\angle^e$, AB||CE)
$3y - y = 40° + 20°$
$2y = 60°$
$y = 30°$

8.



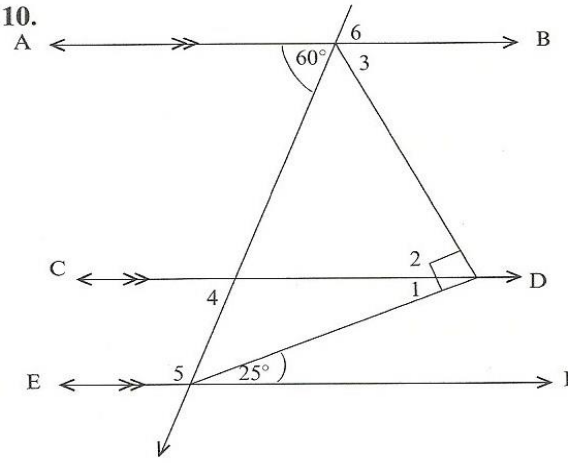
$a = 38°$ (Verwis. $\angle^e$; AB||CF)
$b = 90° - 38°$
$= 52°$
$c + a = 180°$ (Ko-binne $\angle^e$, BC||EF)
$c + 38° = 180°$
$c = 142°$
$b + d = 180°$ (Ko-binne $\angle^e$, CD||FG)
$52° + d = 180°$
$d = 128°$

9.



$\hat{1} = 40°$ (Verwis. $\angle^e$, BG||CH)
$\hat{2} + 100° = 180°$ (Ko-binne $\angle^e$, BG||CH)
$\hat{2} = 80°$
$\hat{1} + \hat{2} + \hat{3} = 180°$ (Reguit lyn: CDH)
$40° + 80° + \hat{3} = 180°$
$\hat{3} = 60°$
$\hat{4} = \hat{2}$ (Ooreenk. $\angle^e$, AC||FD)
$= 80°$
$\hat{5} + \hat{4} = 180°$ (Ko-binne $\angle^e$, BE||CD)
$\hat{5} = 100°$
$\hat{6} = \hat{4}$ (Ooreenk. $\angle^e$ BE||CD)
$= 80°$
$\hat{7} = \hat{3}$ (Verw. $\angle^e$, AC||FD)
$= 60°$
$\hat{8} = 40°$ (Regoorst. $\angle^e$)
$\hat{8} + \hat{9} = 180°$ (Reguit lyn: AED)
$40° + \hat{9} = 180°$
$\hat{9} = 140°$

10.



$\hat{1} = 25°$ (Verwis. $\angle^e$, CD||EF)
$\hat{2} = 90° - 25°$
$= 65°$
$\hat{3} = \hat{2}$ (Verwis. $\angle^e$, AB||CD)
$= 65°$
$\hat{4} = 60°$ (Ooreenk. $\angle^e$, AB||CD)
$\hat{4} + \hat{5} = 180°$ (Ko-binne $\angle^e$, CD||EF)
$60° + \hat{5} = 180°$
$\hat{5} = 120°$
$\hat{6} = 60°$ (Regoorst. $\angle^e$)