



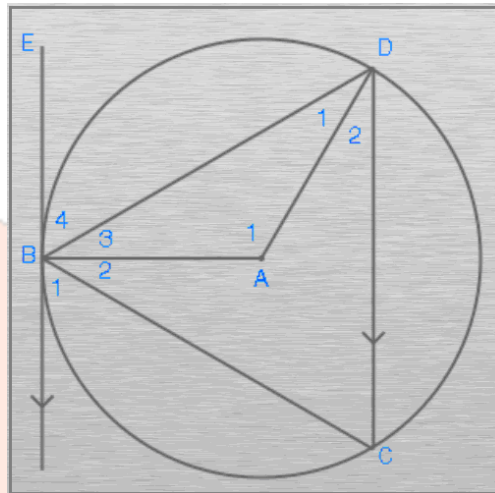
# CAMI Wiskunde: Graad 11

## GRAAD 11\_Euklidiese Meetkunde

### 11.7 Raaklyne

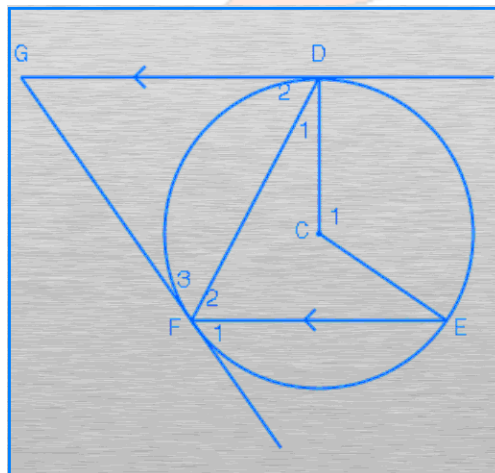
1. As  $\hat{A}_1 = 114^\circ$  en A is die middelpunt van die sirkel, bereken die volgende hoek:

- (a)  $\hat{C}$     (b)  $\hat{B}_1$     (c)  $\hat{B}_3$     (d)  $\hat{D}_2$



2. As  $\hat{C}_1 = 124^\circ$  en C is die middelpunt van die sirkel, bereken die volgende hoek:

- (a)  $\hat{F}_2$     (b)  $\hat{D}_2$     (c)  $\hat{D}_1$

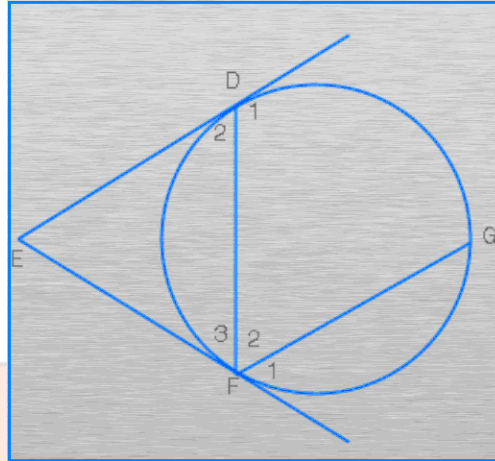




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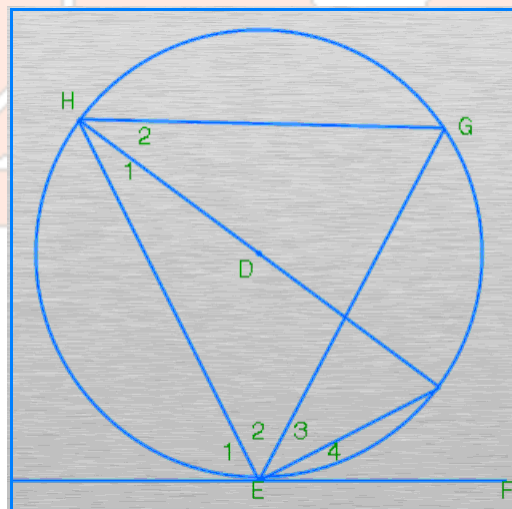
3. As  $DE \parallel FG$  en  $\hat{D}_1 = 128^\circ$ , bereken die volgende hoeke:

- (a)  $\hat{D}_2$     (b)  $\hat{F}_3$     (c)  $\hat{F}_1$



4. As  $\hat{E}_2 = 46^\circ$  en  $\hat{E}_4 = 28^\circ$  met D die middelpunt van die sirkel, bereken die volgende hoeke:

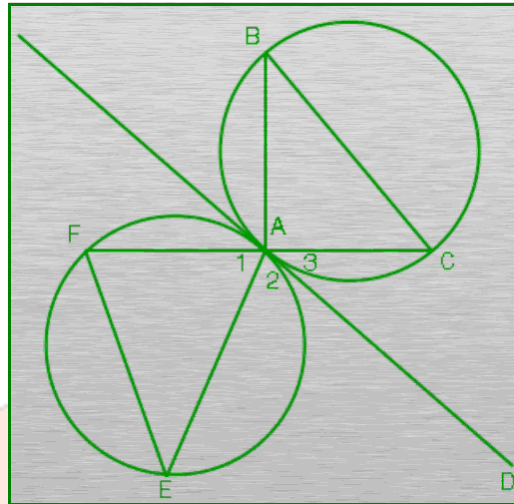
- (a)  $\hat{H}_1$     (b)  $\hat{E}_3$     (c)  $\hat{H}_2$





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5. As  $FAC$  'n reguit lyn is,  $\hat{B} = 40^\circ$  en  $\hat{A}_1 = 79^\circ$ , bereken die volgende hoeke:  
(a)  $\hat{A}_2$       (b)  $\hat{F}$





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## MEMO

[8.6.1; 8.6.2; 8.6.4; 8.6.3]

- 1(a)  $\hat{2C} = \hat{A}_1$  <'e op omtrek  
 $\hat{C} = 57^\circ$
- (b)  $\hat{B}_1 = \hat{C} = 57^\circ$  verwiss. <'e BE//CD
- (c)  $\hat{B}_3 + \hat{D}_1 + \hat{A}_1 = 180^\circ$  binnehoeke van  $\Delta$   
 $\hat{B}_3 = \hat{D}_1$  gelykbenige  $\Delta$   
 $\hat{2B}_3 = 180^\circ - 114^\circ$   
 $\hat{B}_3 = 33^\circ$
- (d)  $\hat{D}_1 + \hat{D}_2 = \hat{B}_1$  BE raaklyn, BC koord  
 $\hat{D}_2 = 24^\circ$
- 2(a)  $\hat{2F}_2 = \hat{C}_1$  <'e op omtrek  
 $\hat{F}_2 = 62^\circ$
- (b)  $\hat{D}_2 = \hat{F}_2 = 62^\circ$  DG raaklyn, DF koord
- (c)  $\hat{D}_1 + \hat{D}_2 = 90^\circ$  raaklyn  $\perp$  radius  
 $\hat{D}_1 = 28^\circ$
- 3(a)  $\hat{D}_1 + \hat{D}_2 = 180^\circ$  suppl <'e  
 $\hat{D}_2 = 52^\circ$
- (b)  $\hat{F}_3 = \hat{D}_2 = 52^\circ$  raaklyne uit dieselfde punt E
- (c)  $\hat{F}_2 = \hat{D}_2 = 52^\circ$  verwiss. <'e DE//FG



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	$\hat{F}_1 = 180^\circ - 52^\circ - 52^\circ$	suppl $\angle$ 'e
	$\hat{F}_1 = 76^\circ$	
4(a)	$\hat{H}_1 = \hat{E}_4 = 28^\circ$	EF raaklyn, koord
(b)	$\hat{E}_3 + \hat{E}_2 = 90^\circ$	$\angle$ op middellyn
	$\hat{E}_3 = 44^\circ$	
(c)	$\hat{H}_2 = \hat{E}_3 = 44^\circ$	$\angle$ 'e in dies. segment
5(a)	$\hat{A}_3 = \hat{B} = 40^\circ$	raaklyn en koord
	$\hat{A}_1 + \hat{A}_2 + \hat{A}_3 = 180^\circ$	suppl $\angle$ 'e
	$\hat{A}_2 = 61^\circ$	
(b)	$\hat{F} = \hat{A}_2$	raaklyn en koord
	$\hat{F} = 61^\circ$	

