

aktiviteit 27

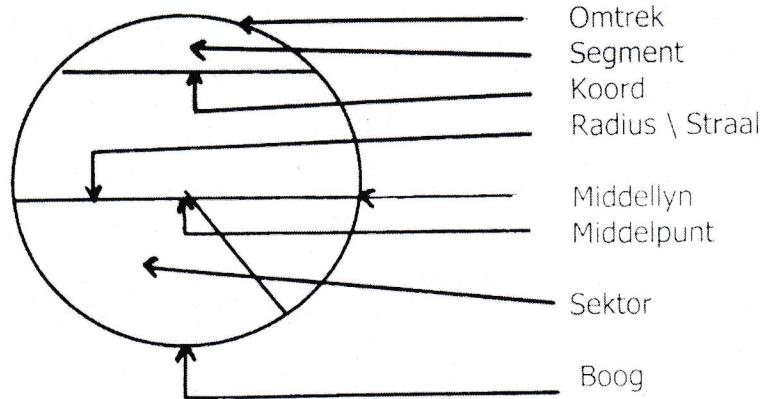
Sirkels – Kontrueer en patronen

Opdrag

Datum _____

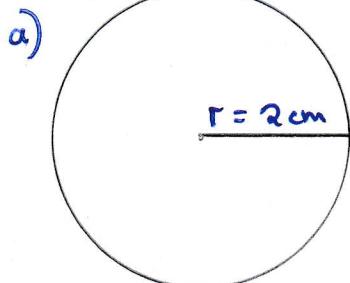
Begrip	Beskrywing
Sirkel	'n Geslote geboë kurwe wat ewe ver van 'n vaste punt is.
Middelpunt van sirkel	Die vaste punt in die middel van die sirkel.
Radius \ Straal	'n Reguit lyn vanaf die middelpunt van die sirkel na enige plek op die omtrek van die sirkel. Dit is die afstand wat jy benodig om enige sirkel te kontrueer.
Omtrek	Die afstand van die kurwe wat 'n sirkel vorm.
Boog	'n Gedeelte van die omtrek van die sirkel.
Sektor	Die vorm wat deur 'n boog en die twee radiusse \ radii aan weerskante daarvan omsluit word.
Middellyn	'n Reguit lyn wat deur die middelpunt van 'n sirkel gaan en aan albei kante van die sirkel raak. Die middellyn is altyd 2 keer die lengte van die radius - m a w middellyn = $2 \times$ radius of radius = $\frac{1}{2}$ van middellyn

Kyk na die skets van die sirkel en die byskrifte wat daarmee saamgaan.

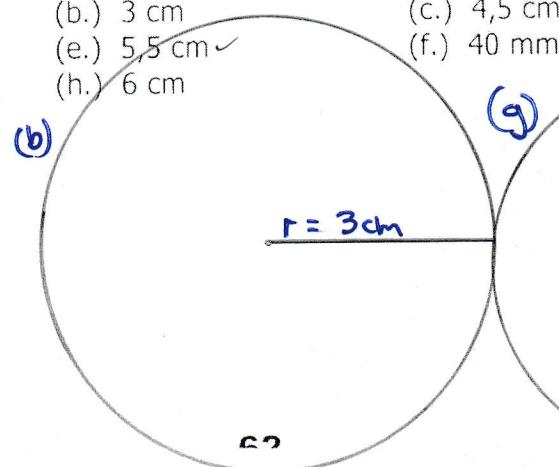


1. Gebruik jou passer en kontrueer die volgende sirkels met radiusse \ radii van :

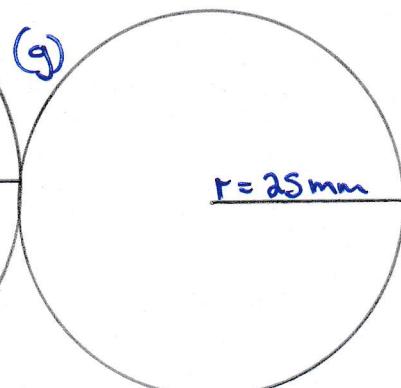
- a.) 2 cm
- d.) 5 cm ✓
- g.) 25 mm ✓



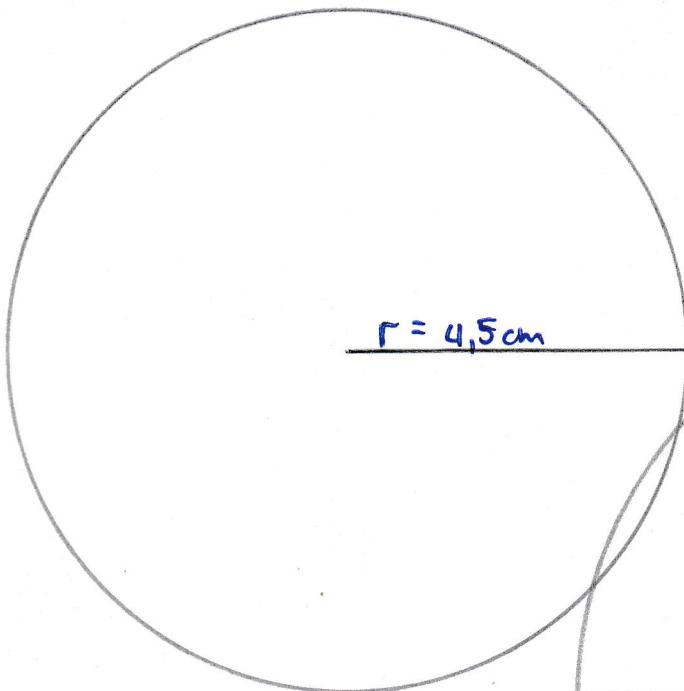
- (b.) 3 cm
- (e.) 5,5 cm ✓
- (h.) 6 cm



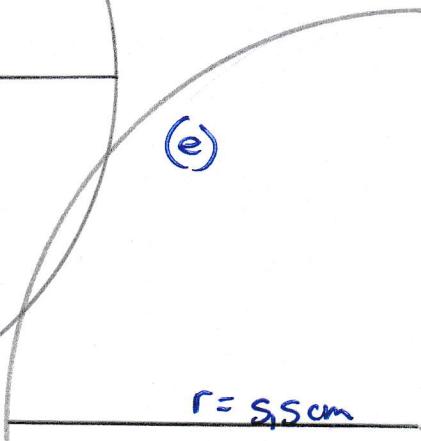
- (c.) 4,5 cm
- (f.) 40 mm



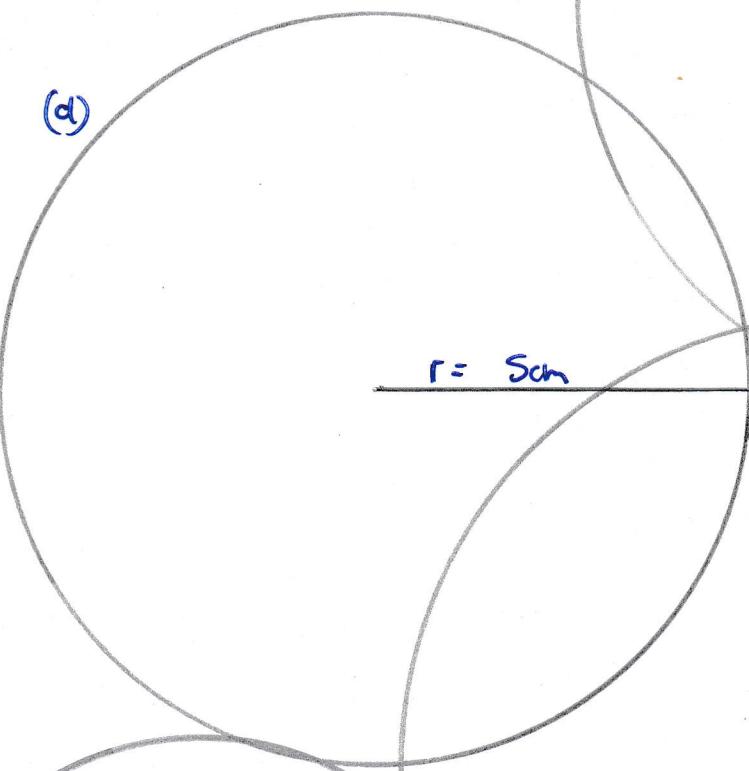
(c)



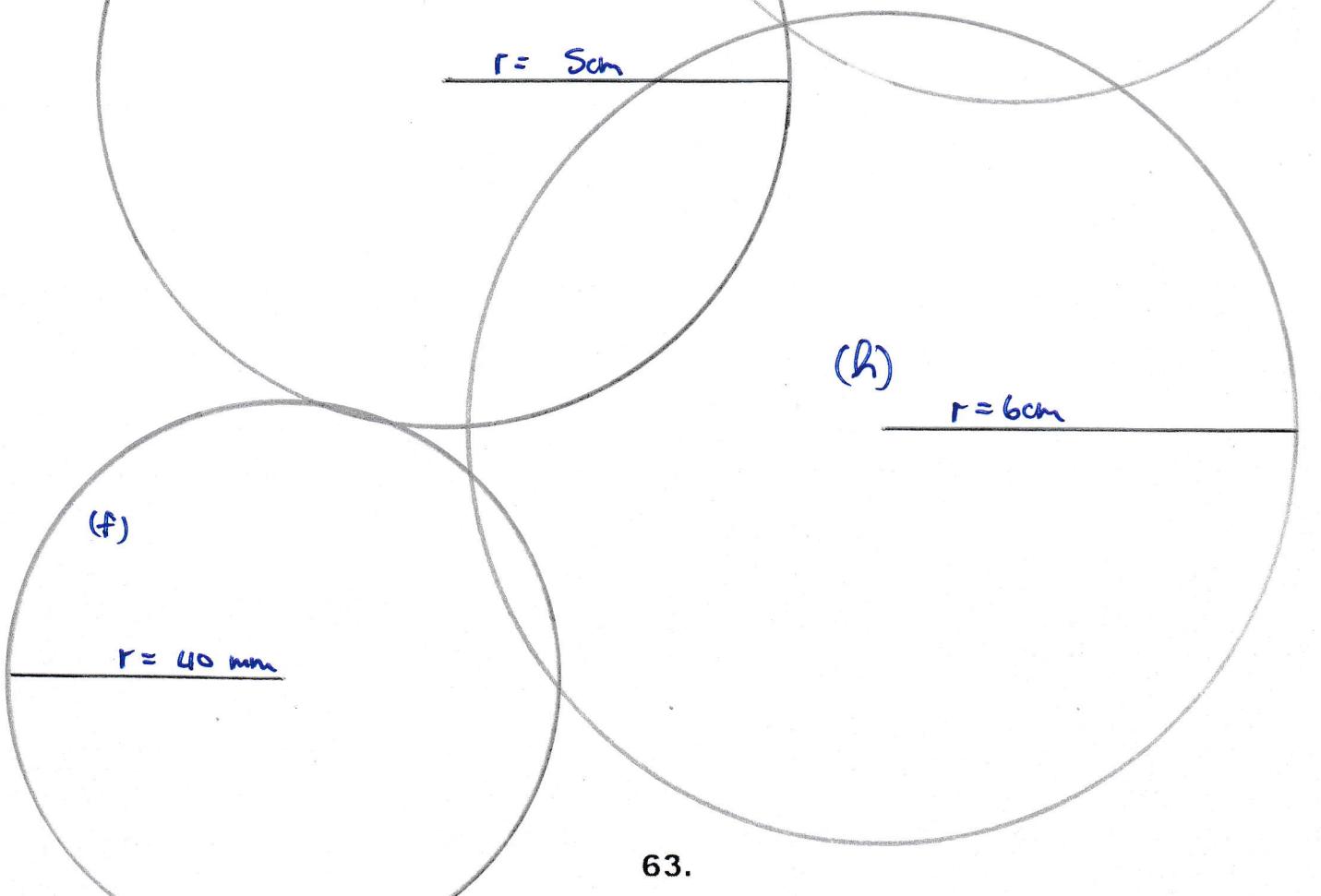
(e)



(d)



(h)

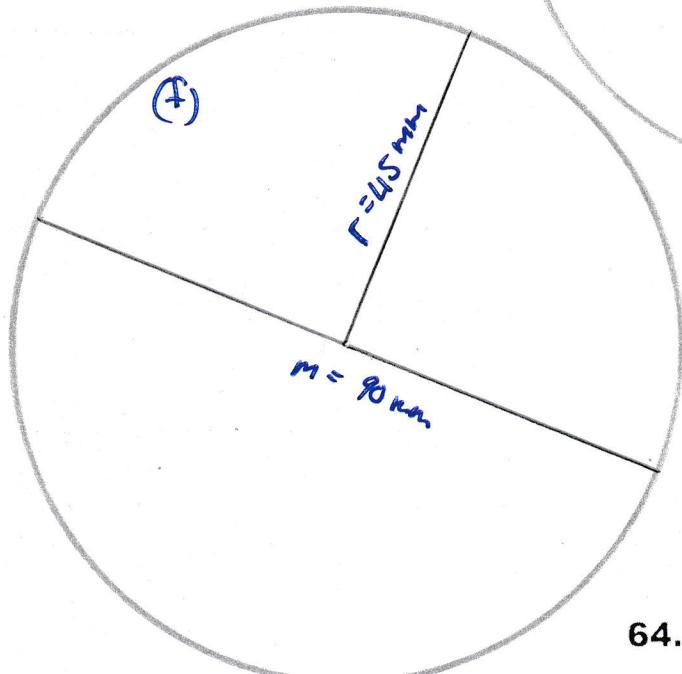
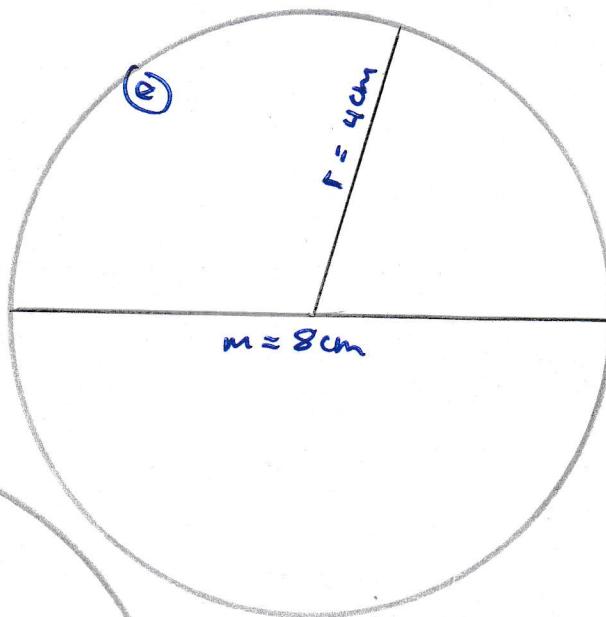
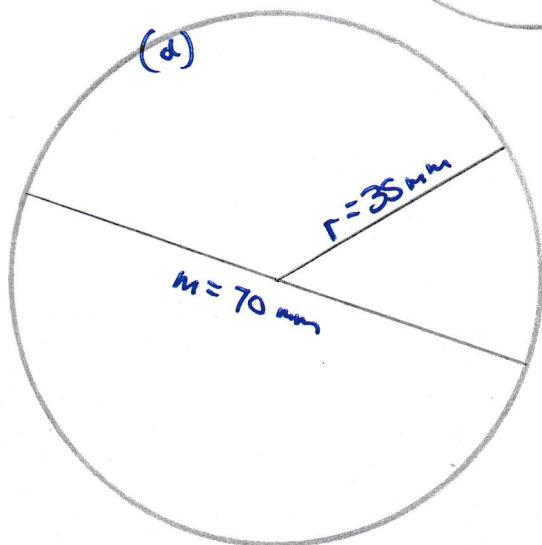
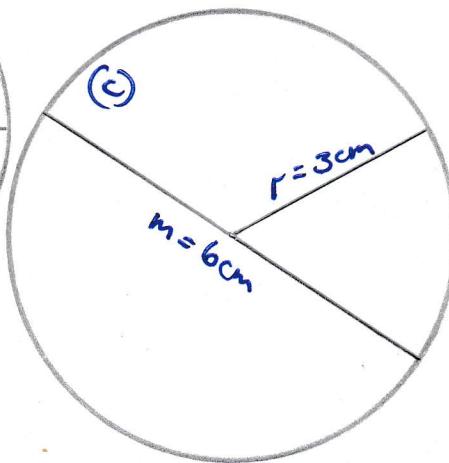
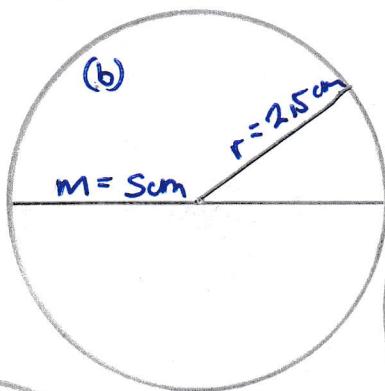
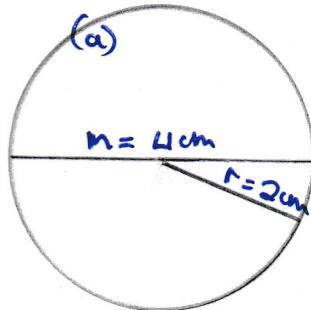


2. Gebruik jou passer en konstrueer die volgende sirkels met middellyne van :

a.) 4 cm ($r = 2 \text{ cm}$)
d.) 70 mm ($r = 3,5 \text{ cm}$)

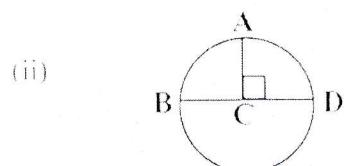
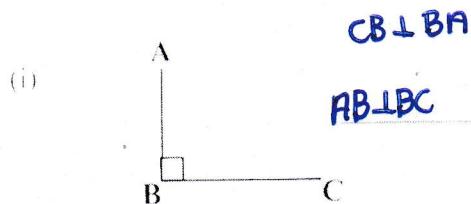
b.) 5 cm ($r = 2,5 \text{ cm}$)
e.) 8 cm ($r = 4 \text{ cm}$)

c.) 6 cm ($r = 3 \text{ cm}$)
f.) 90 mm ($r = 4,5 \text{ cm} / 45 \text{ mm}$)

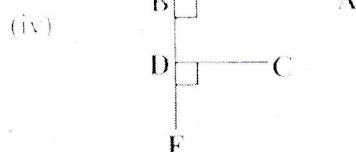
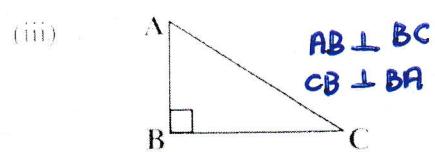


Kyk na die verduideliking in die woordelys en die blok hierbo en doen die vrae volledig.:

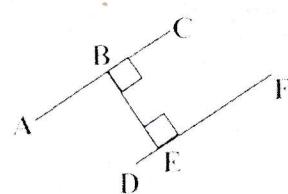
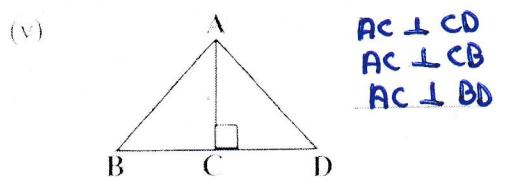
- Identifiseer al die pare loodregte lyne in elk van die volgende figure → Onthou die korrekte Wiskundige skryfwyse.



$AC \perp BD$
 $AC \perp CD$ of $AC \perp CB$ of



$AB \perp BE$ of $AB \perp BD$
 $CD \perp DB$ of $CD \perp DE$ of
 $CD \perp BE$



$CB \perp BE$
 $AB \perp BE$
 $BE \perp EF$
 $BE \perp ED$
 $BE \perp DF$

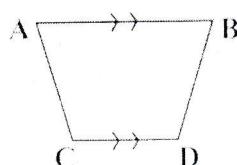
- Bestudeer die volgende figure en benoem die pare lyne of lynsegmente wat ewewydig is.

Voorbeeld: $A \rightarrow \rightarrow B$

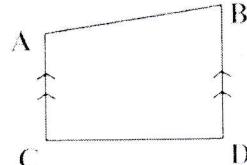
$C \rightarrow \rightarrow D$

Antwoord: **$AB // CD$**

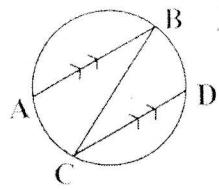
(i) **$FB // CD$**



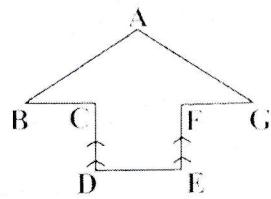
(ii) **$AC // BD$**



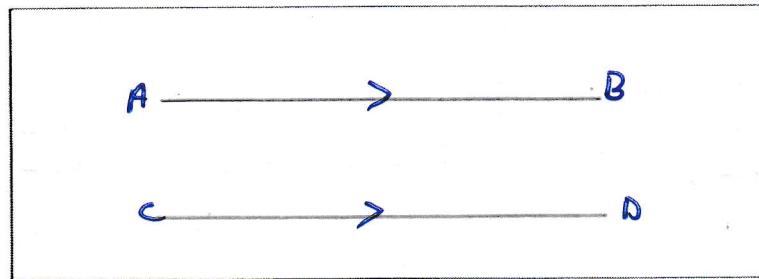
(iii) **$AB // CD$**



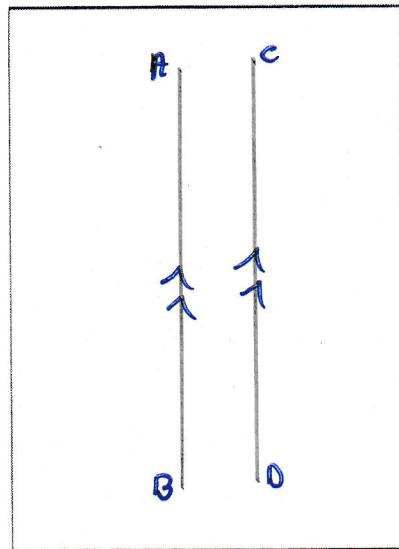
(iv) $CD \parallel FE$



3. Gebruik jou liniaal om 'n paar horisontale ewewydige lyne te trek – binne die blok



- (d) Gebruik jou liniaal om 'n paar vertikale ewewydige lyne te trek – binne die blok



Opdrag

1. Voltooi die volgende deur die gevraagde meetkundige figure te teken – kyk na die verduideliking in die blok → skryf met **PEN** en teken met **POTlood** !!!

(a) Gebruik 'n liniaal en potlood om voorstellings van die volgende te maak:

(i) Punt D

D

(ii) Lyn CD



(iii) Lynstuk EF



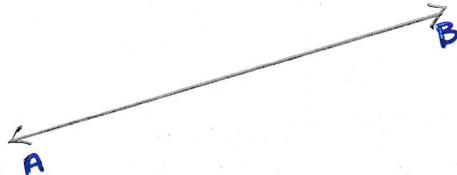
(iv) Horisontale lynstuk GH



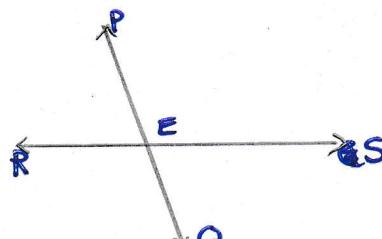
(v) Vertikale lynstuk EF



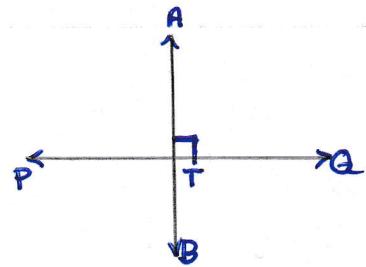
(vi) Skuinslyn AB



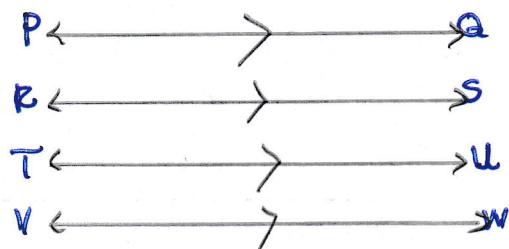
(vii) Lyn PQ sny lyn RS in E



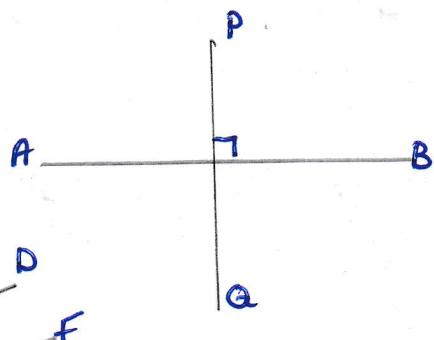
(viii) Lyn AB sny lyn PQ
loodreg in T



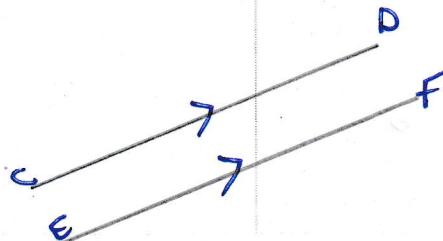
(ix) Trek drie (3) lyne wat
ewewydig aan lyn PQ is



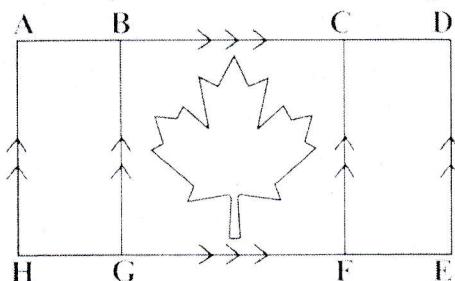
(x) $PQ \perp AB$



(xi) $CD // EF$



(b) Voel jy ook trots as jy ons pragtige nasionale vlag sien? Daar is baie meetkunde in ons landsvlag. Kom ons bekyk nou die Kanadese vlag.



(i) Identifiseer al die pare horisontale ewewydige lyne.

AB || HG ; BC || GF ; CD || FE ; AD || HE (daar is nog).

(ii) Omkring die korrekte antwoord: AH is loodreg op:

BG

DE

HE

BF

(iii) Noem al die lyne wat ewewydig is aan BG.

AH

CF

DE