



Province of the
EASTERN CAPE
DEPARTMENT OF EDUCATION

NASIONALE SENIORSERTIFIKAAT

GRAAD 12

INGENIEURSGRAFIKA EN -ONTWERP V2

SEPTEMBER 2024

**VOORBEREIDINGS EKSAMEN
NASIENRIGLYN**

PUNTE: 200

TYD: 3 uur

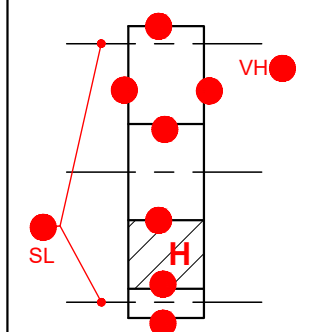
Hierdie nasienriglyn bestaan uit 7 bladsye.

Kopiereg voorbehou

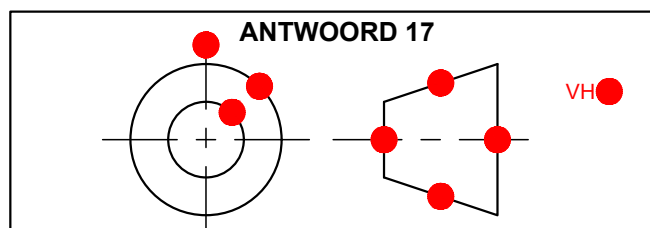
VRAAG 1: ANALITIES (MEGANIES)

| ANTWOORDE | | |
|-----------|--|----|
| 1 | SAM | 1 |
| 2 | EEN | 1 |
| 3 | AUTOCAD 2023 | 1 |
| 4 | 12 | 1 |
| 5 | GIETYSER | 1 |
| 6 | KOLVLAK | 1 |
| 7 | BUITESKROEFDRAAD | 1 |
| 8 | REGTERAANSIG | 2 |
| 9 | OLIEGAT | 1 |
| 10 | CLEARANCE OF TOLERANSIE | 1 |
| 11 | 4 | 1 |
| 12 | A = 16 mm , B = 5 mm , C = 329 mm | 3 |
| 13 | mm | 1 |
| 14 | 5 | 1 |
| 15 | $106+0.25 = 106.25$ EN $106-0.03 = 105.97$ | 4 |
| 16 | SIEN HIERONDER | 5 |
| 17 | SIEN HIERONDER | 4 |
| TOTAAL | | 30 |

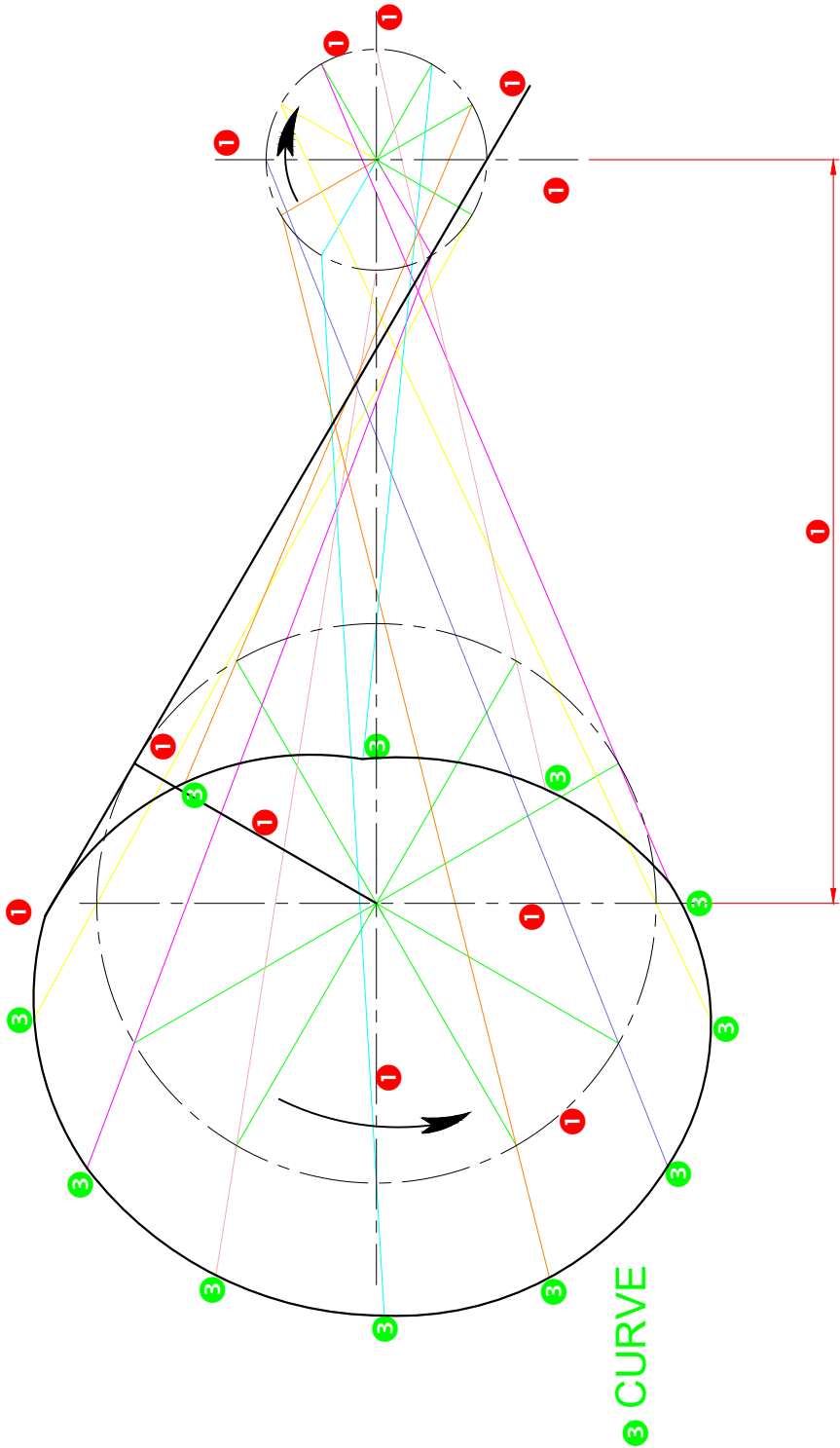
ANTWOORD 16



ANTWOORD 17



VRAAG 2.1: LOKUS (MEGANISME)



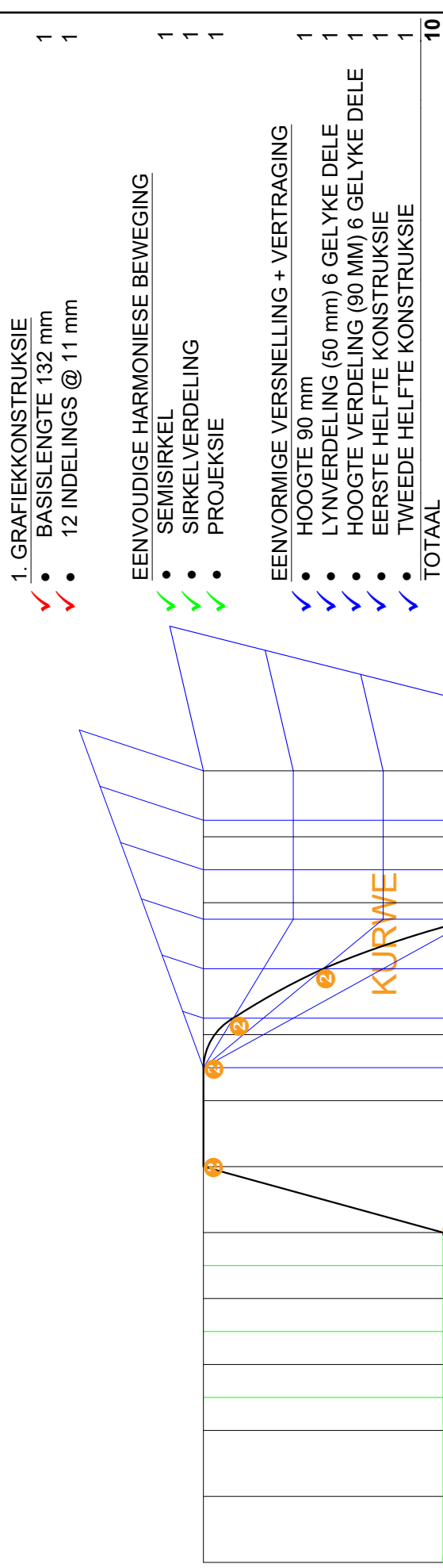
2. KONSTRUKSIE VAN DIAGRAM

| | |
|--------------------|---|
| • SIRKEL VERDELING | 2 |
| • KONSTRUKSIES AC | 2 |
| • KURWEKWALITEIT | 2 |
| TOTAAL | 6 |

| ASSESSERINGSKRITERIA | |
|----------------------|-------------------------|
| 1 | GEGEE |
| 2 | KONSTRUKSIE VAN DIAGRAM |
| 3 | KONSTRUKSIE VAN LOKUS |
| TOTAAL | |
| 18 | |

| | |
|---|--|
| 3 | |
|---|--|

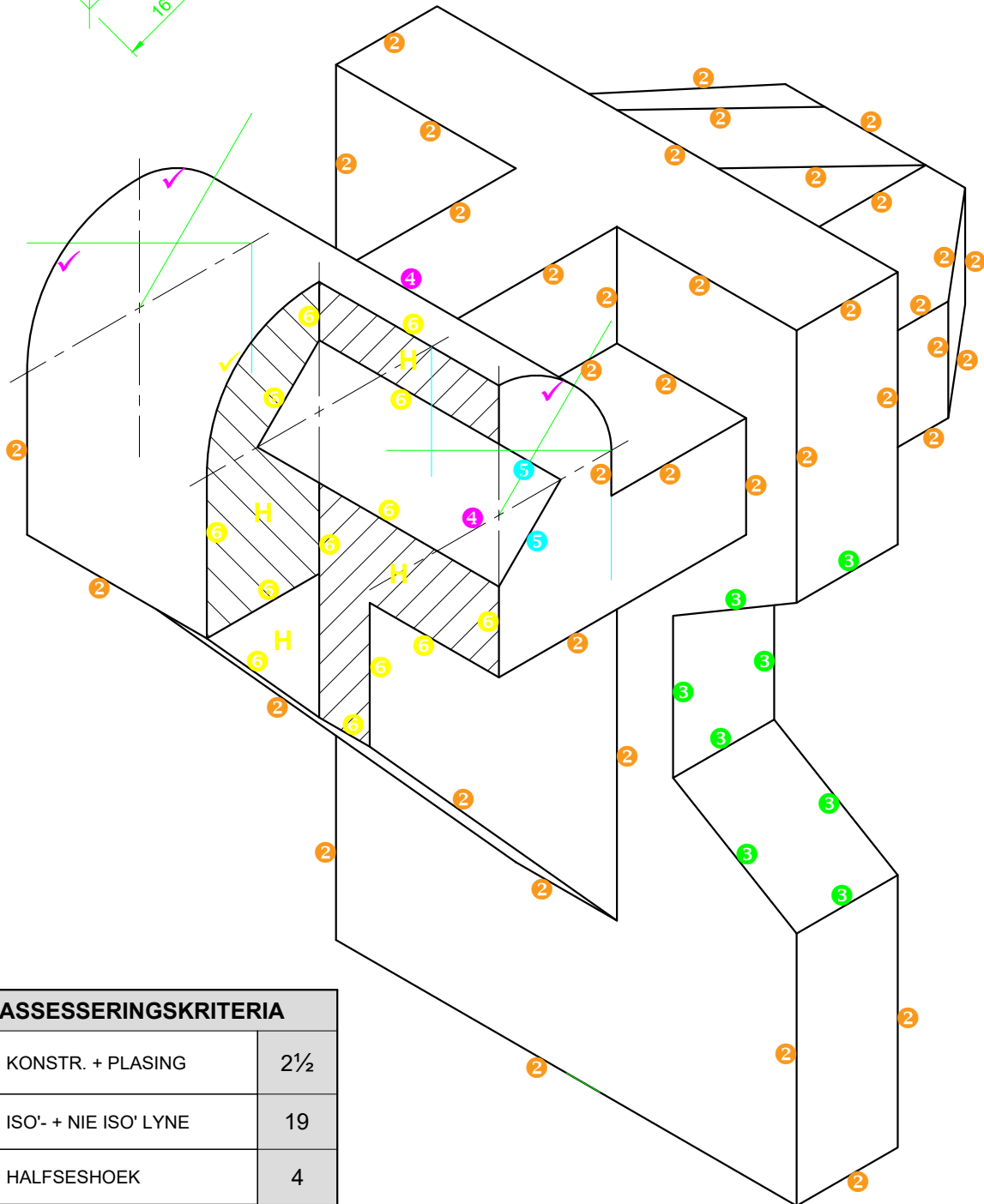
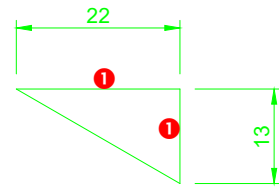
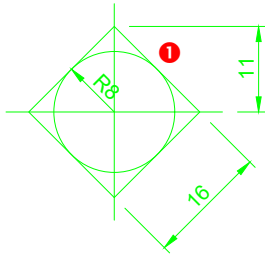
VRAAG 2.2: LOKUS (NOK)



VERPLASINGSGRAFIEK ✓
SKAAL 30° = 11 mm ✓

| ASSESSERINGSKRITERIA | | |
|----------------------|---------------------|----|
| 1 | GRAFIEK KONSTRUKSIE | 10 |
| 2 | KONSTRUKSIE | 8 |
| 3 | OPSKRIF EN SKAAL | 2 |
| TOTAAL | | 20 |

VRAAG 3: ISOMETRIES



ASSESSERINGSKRITERIA

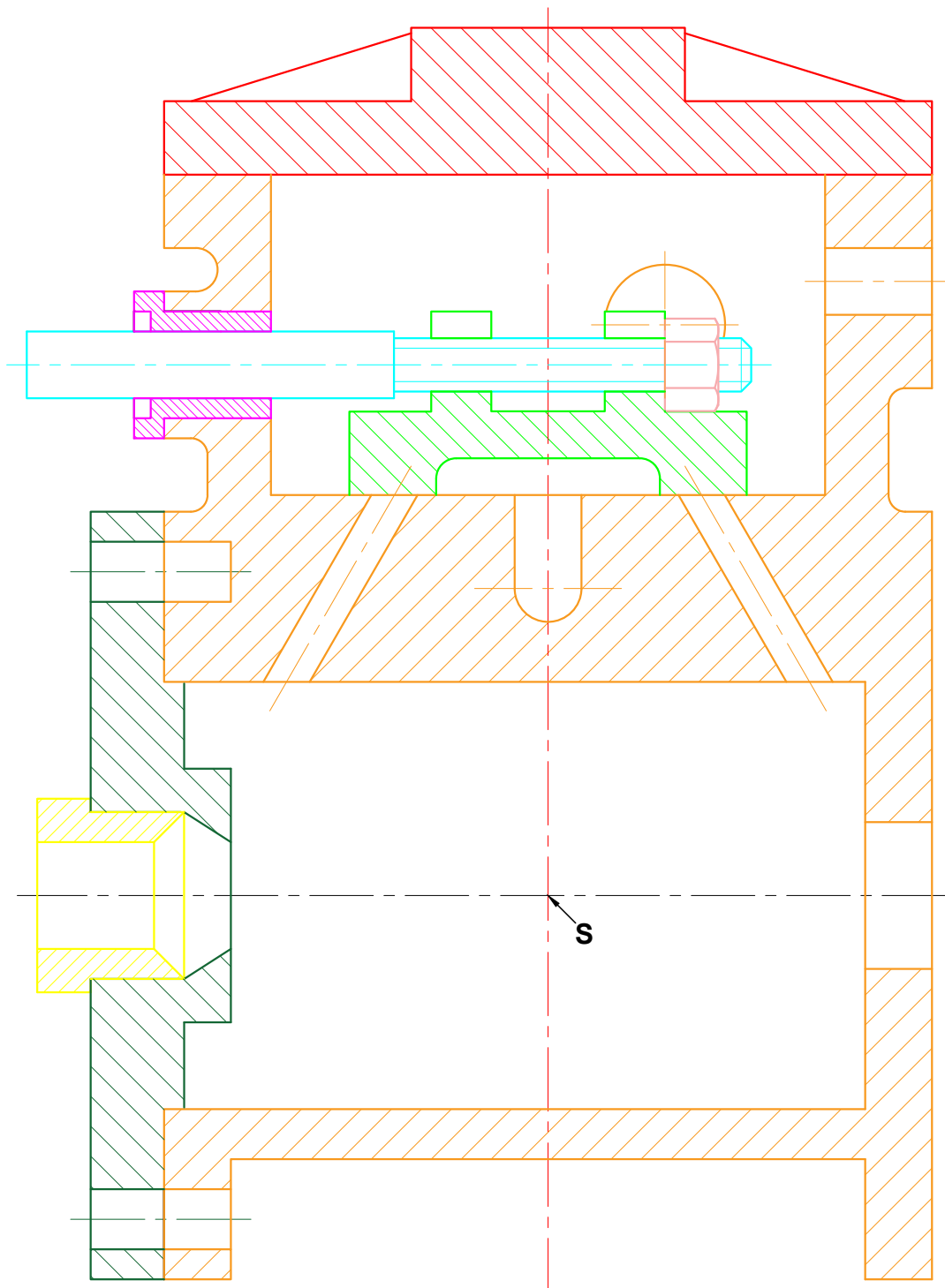
| | | |
|--------|-----------------------|----|
| 1 | KONSTR. + PLASING | 2½ |
| 2 | ISO'- + NIE ISO' LYNE | 19 |
| 3 | HALFSESHOEK | 4 |
| 4 | HALFSIRKEL + SL'E | 4 |
| 5 | VIERKANT | 1 |
| 6 | DEURSNEE A-A | 9½ |
| TOTAAL | | 40 |



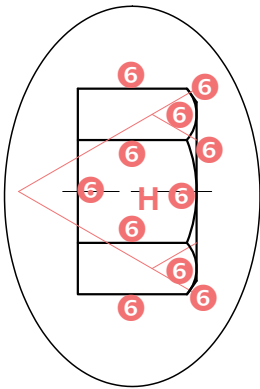
VRAAG 4: MEGANIESE SAMESTELLING

| PENALISERING | | |
|---------------------------------|---|----|
| 1 | VERKEERDE SKAAL | -2 |
| 2 | ONDERDELE NIE SAAMGESTEL (-1 PUNT PER ONDERDEEL) | -8 |
| 3 | VERKEERDE ARSERING | -2 |
| TOTALE PENALISEERING (-) | | |

| ASSESSERINGSKRITERIA | | |
|----------------------|---|-----------|
| ALGEMEEN | | |
| 1 | SETERLYNE KETTINGLYN = 1 1 - 4 LYNE = 1 OF 5 - 10 LYNE = 2 | 3 |
| 2 | SAMESTELLING | 8 |
| SUBTOTAAL | | 11 |



VRAAG 4: MEGANIESE SAMESTELLING



DEURSNEE VOORAANSIG

| | | |
|-------------------|-----------------|-----------|
| 1 | DEKSEL | 6 |
| 2 | HULSEL | 32 |
| 3 | KLEP | 9½ |
| 4 | HULSEL DRUKSTUK | 4½ |
| 5 | AS | 6½ |
| 6 | M8-MOER | 6½ |
| 7 | SILINDER DEKSEL | 12 |
| 8 | DEKSEL DRUKSTUK | 5 |
| SUB-TOTAAL | | 81 |

