



Destinataskool
Destinatala School



EKSAMINATOR/EXAMINER F MARX
MODERATOR J NAUDE

GR 12



INGENIEURSGRAFIKA EN -ONTWERP V2
ENGINEERING GRAPHICS AND DESIGN P2

Totaal/ Total: 190

Tyd/ Time: 3ure/3 hrs

INSTRUKSIES EN INLIGTING

- Beantwoord ALLE vrae.
- Alle tekene moet volgens skaal 1:1 gemaak word, tensy anders vermeld.
- Alle vrae moet op die gegewe antwoordvulle beantwoord word.
- Alle antwoordvulle moet weer in nummervolgorde vasgekrum en ingelewer word, ongeag of die vraag beantwoord is of nie.
- Sorgvuldige tydsbeplanning is nodig om alle vrae te beantwoord.
- Drukskrif/ jou naam in die blokkie voorsien op elke antwoordvel.
- Alle antwoorde moet akkuraat en netjies gedoen word.
- Besonderhede of afmetings wat uitgelaat is moet in goeie verhouding beraam word.

INSTRUCTIONS AND INFORMATION

- Answer ALL the questions.
- All drawings must be drawn to scale 1:1, unless otherwise stated.
- The questions must be answered on the answer sheets provided.
- All the answer sheets must be re-stapled in numerical sequence and handed in irrespective of whether the question was attempted or not.
- Careful time management is essential in order to complete all the questions.
- Print your name in the block provided on every answer sheet.
- All answers must be drawn accurately and neatly.
- Any details or dimensions not given must be assumed in good proportion.

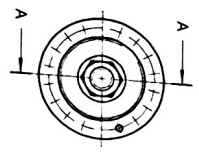
Punt/Mark	
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VOLTOOI / COMPLETE	
NAAM	
NAME	
DATUM	
DATE	

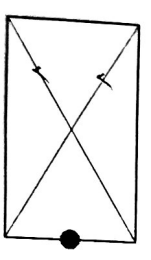
ANTWOORDE

1	AGTERWIELNAAF	1
2	AUTOCAD	1
3	SKAAL 2 : 3	1
4	JOHN	1
5	BF 71116	1
6	CHROOMPLATERING	1
7	EN 19	1
8	25	1
9	REGTERAANSIG	1
10	A: 50 B: 6 C: 18 D: M36	4
11	STEELSIKKELDIAMETER	1
12	OORKANTS	1
13	SIMMETRIE	1
14	GEDELTETELIKE SNIT	1
15	SPASIEERDER	1
16	FRESWERK	1
17	4	2
18	36	1
19	99.65	2
20		3
21	<i>Stien hieronder</i>	3
TOTAAL		30

ANTWOORD 20 - SNIT A-A



ANTWOORD 21 - KONVENSIE VAN 'N VIERKANT OF 'N PLAT VLAK

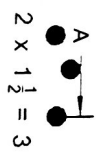
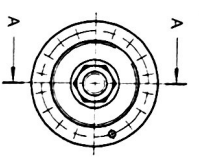


● VRYHAND
● VIR BUTELYNIE

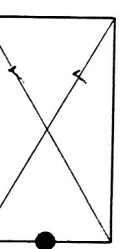
ANSWERS

1	REAR WHEEL HUB	1
2	AUTOCAD	1
3	SCALE 2 : 3	1
4	JOHN	1
5	BF 71116	1
6	CHROME PLATING	1
7	EN 19	1
8	25	1
9	RIGHT VIEW	1
10	A: 50 B: 6 C: 18 D: M36	4
11	PITCH CIRCLE DIAMETER	1
12	ACROSS FLATS	1
13	SYMMETRY	1
14	PART SECTION	1
15	SPACER	1
16	MILLING	1
17	4	2
18	36	1
19	99.65	2
20		3
21	<i>See below</i>	3
TOTAL		30

ANSWER 20 - SECTION A-A



ANSWER 21 - CONVENTION FOR A SQUARE OR A FLAT FACE



● FREEHAND
● FOR OUTLINES

ANTWOORDE

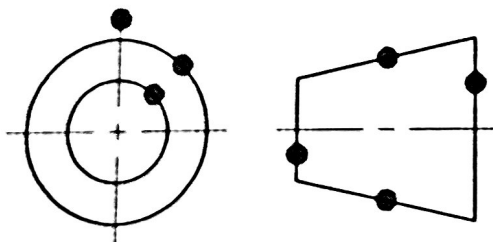
1	2016/06/25	1
2	AUTO ENGINEERING	1
3	2 : 1	1
4	2500	1
5	2016/05/22	1
6	steering4.dwg	1
7	LINKERAANSIG	1
8	6	1
9	0,15	1
10	1	1
11	1	1
12	HALF DEURSNEE	2
13	AFKANTING	1
14	VERHOGING	1
15	6 mm	2
16	DEURDRINGINGSKURWE	2
17	A Ø34 B Ø100 C 41 D 42	4
18		4
TOTAAL		27 28

ANSWERS

1	2016/06/25	
2	AUTO ENGINEERING	
3	2 : 1	
4	2500	
5	2016/05/22	
6	steering4.dwg	
7	LEFT VIEW	
8	6	
9	0,15	
10	1	
11	1	
12	HALF SECTION	
13	CHAMFER	
14	EMBOSED SURFACE	
15	6 mm	
16	CURVE OF INTERPENETRATION	
17	A Ø34 B Ø100 C 41 D 42	
18		
TOTAL		

ANTWOORD 18

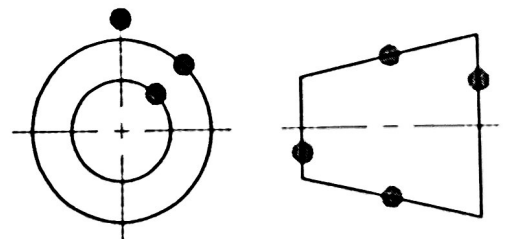
● VRYHAND



SIMBOOL

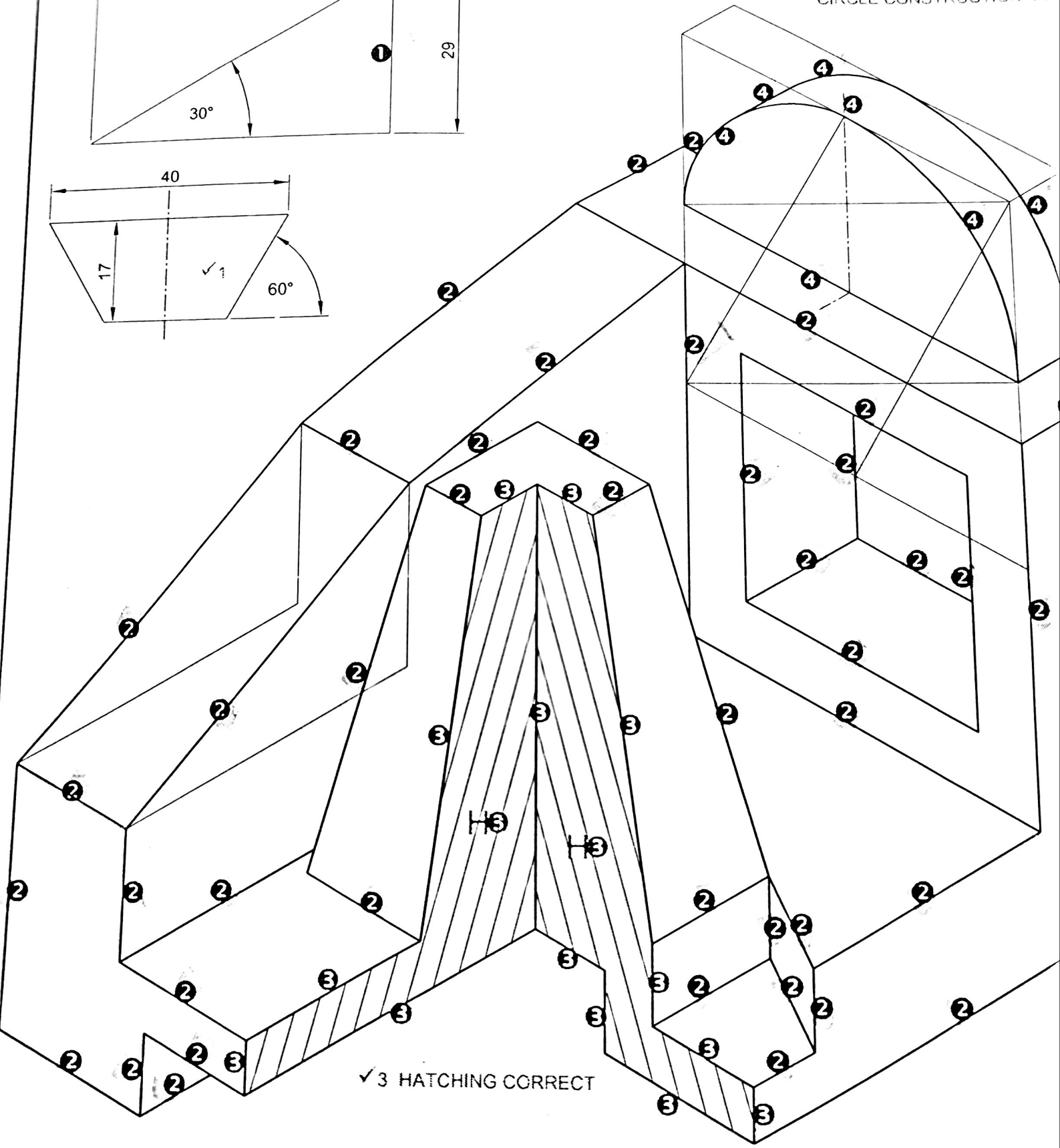
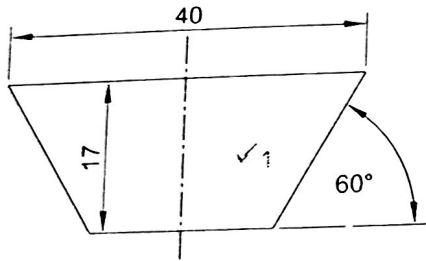
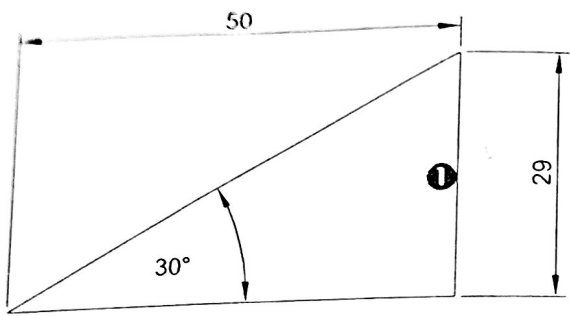
ANSWER 18

● FREEHAND



SYMBOL

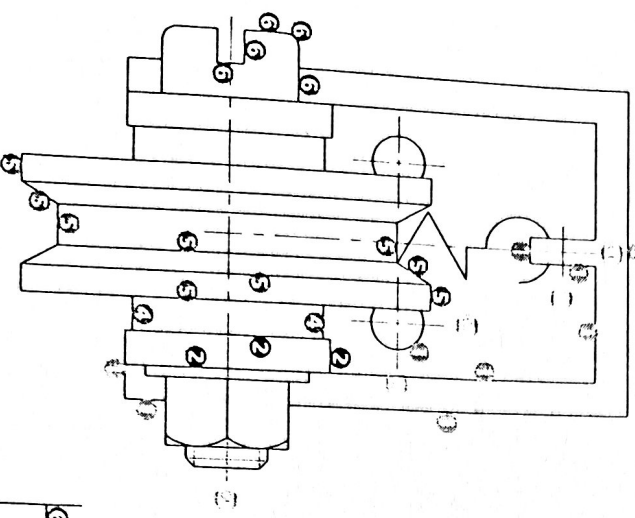
CIRCLE CONSTRUCTION ✓✓



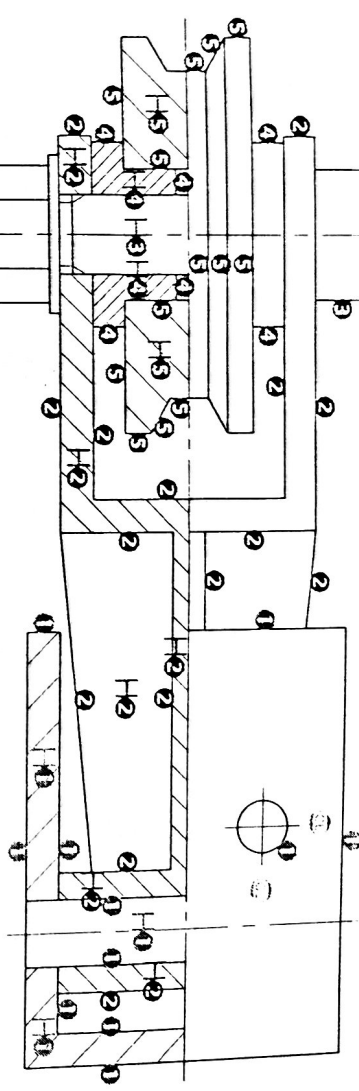
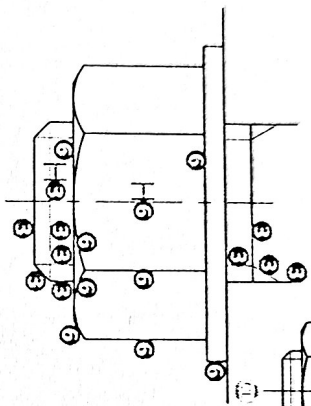
✓ 3 HATCHING CORRECT

↓
S ✓ 1 PLACING ON S

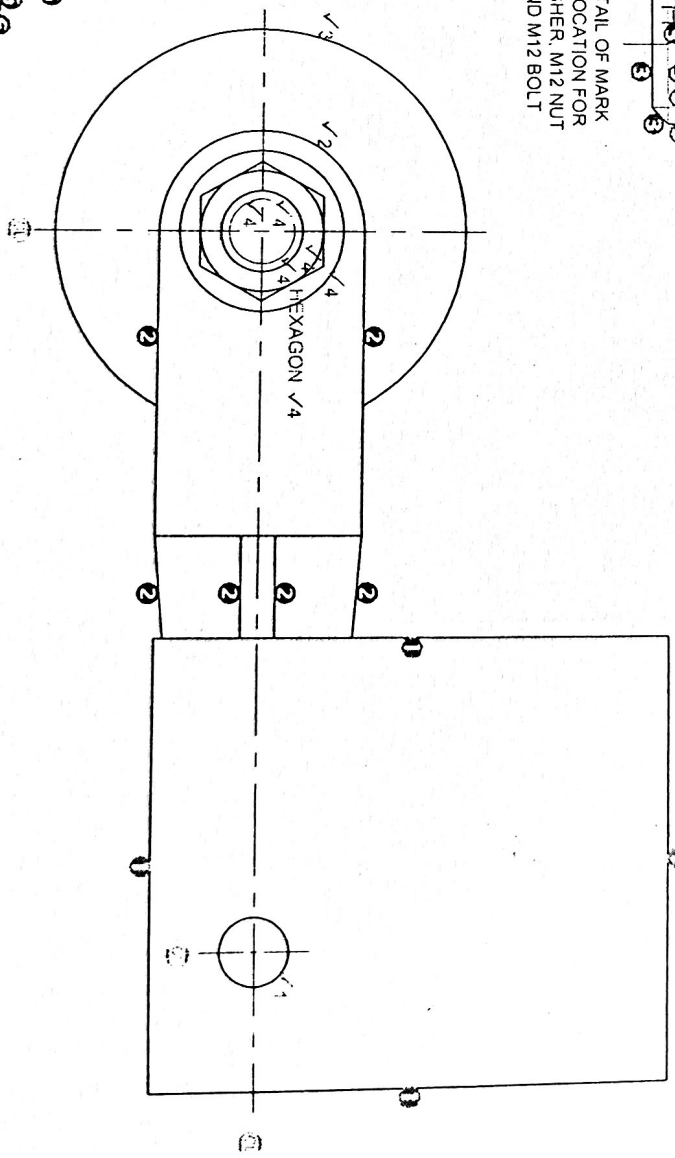
3. SPRING MARK ALLOCATION
FREEHAND
TOP CURVE
SPRING PROFILE



DETAIL OF MARK ALLOCATION FOR WASHER, M12 NUT AND M12 BOLT



DETAIL OF MARK ALLOCATION FOR WASHER, M12 NUT AND M12 BOLT



1 MARK FOR EVERY COMPONENT CORRECTLY ASSEMBLED (10 PARTS - 1) = 9