



basic education

Department:
Basic Education
REPUBLIC OF SOUTH AFRICA

**NATIONAL
SENIOR CERTIFICATE**

GRADE 12

ENGINEERING GRAPHICS AND DESIGN P2

NOVEMBER 2015

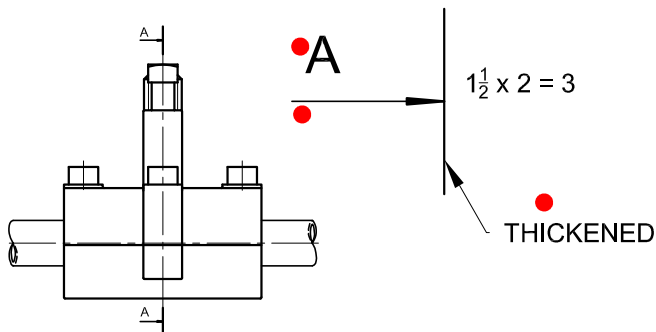
MEMORANDUM

MARKS: 100

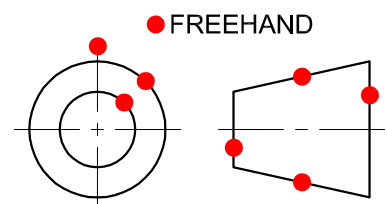
This memorandum consists of 7 pages.

ANSWERS		
1	TAPPING VALVE	1
2	2015/01/05	1
3	2015 - A - 005	1
4	SCALE 2 : 1	1
5	AUTOCAD	1
6	ANDREW BRAND	1
7	PEWTER	1
8	SECTIONAL FRONT VIEW	1
9	3	1
10	A : Ø 4 B : 4 C : 26	3
11	FILLET	1
12	PART SECTION	1
13	SPECIFIC PART HATCHING e.g. RUBBER or THIN PART	1
14	29	1
15	TO SHOW DETAIL	2
16	INTERRUPTED VIEW/CONTINUES/S-BREAK	1
17	Ø6.35	2
18	Ø5.47	2
19	<i>See below</i>	3
20		4
TOTAL		30

ANSWER 19

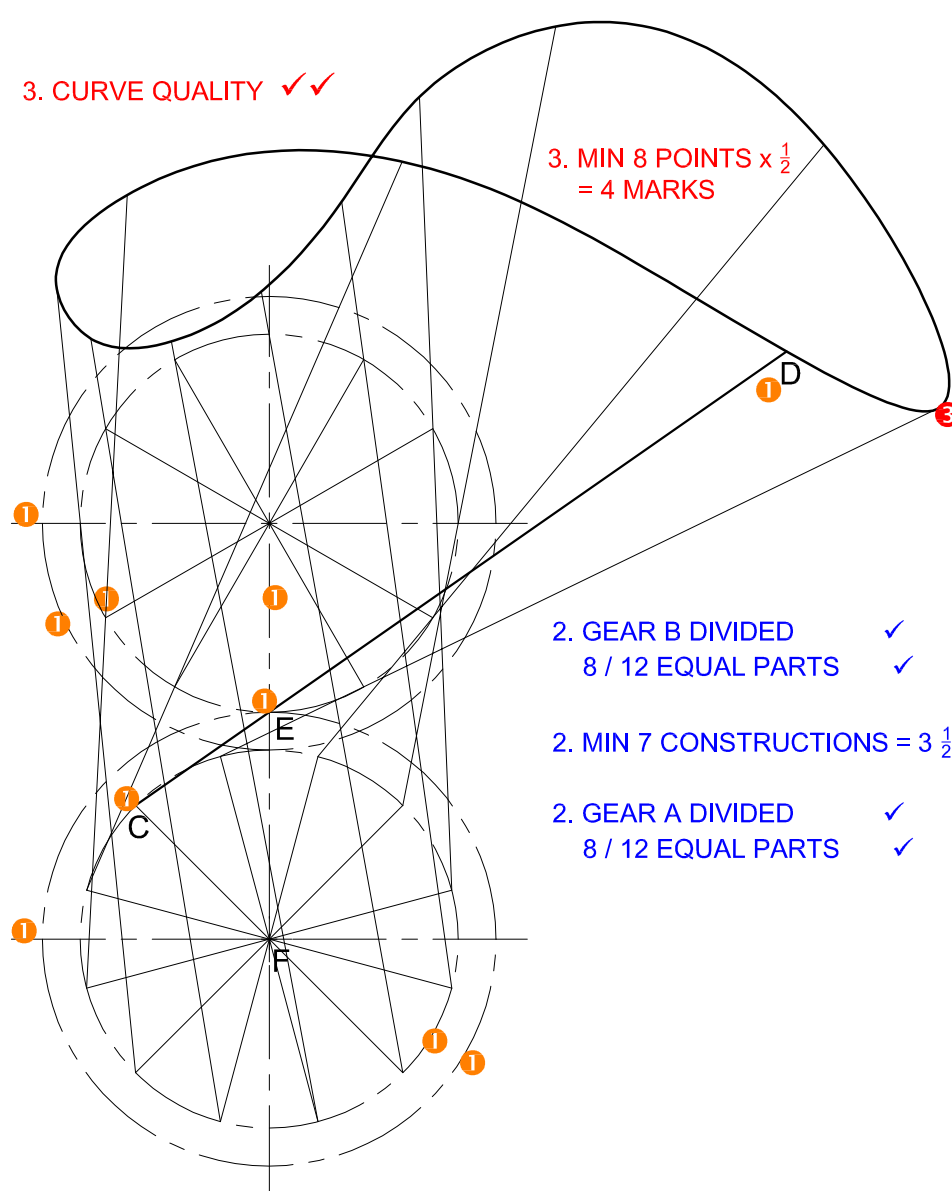


ANSWER 20



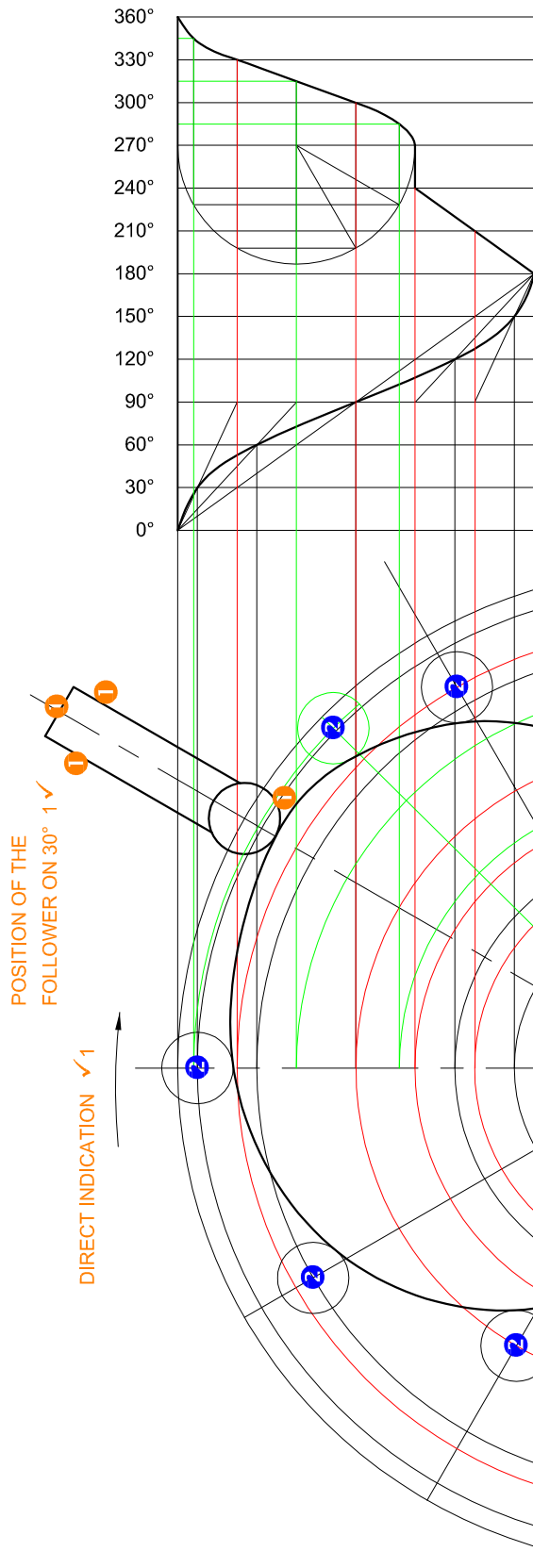
SYMBOL

PAPER 2 QUESTION 1
 GRADE 12
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 MEMORANDUM



PAPER 2 QUESTION 2.1
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ASSESSMENT CRITERIA 2.1		
1	GIVEN + CENTRE LINES	5
2	CONSTRUCTION	7 1/2
3	POINTS + CURVE	6 1/2
SUBTOTAL 2.1		19



POSITION OF THE FOLLOWER ON 30° ✓ 1

DIRECT INDICATION ✓ 1

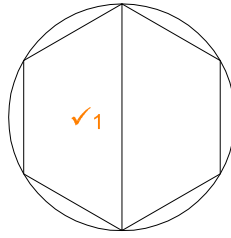
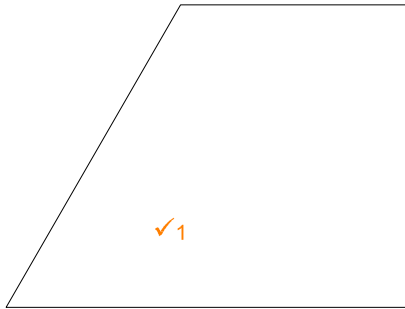
DISPLACEMENT GRAPH
SCALE 6 mm = 30°

- 1. CONSTRUCTION**
- CIRCLE DIVISION 1
 - HORIZONTAL PROJECTION 1
 - ARC PROJECTION 1
 - DIRECTION CORRECT 1
- 4

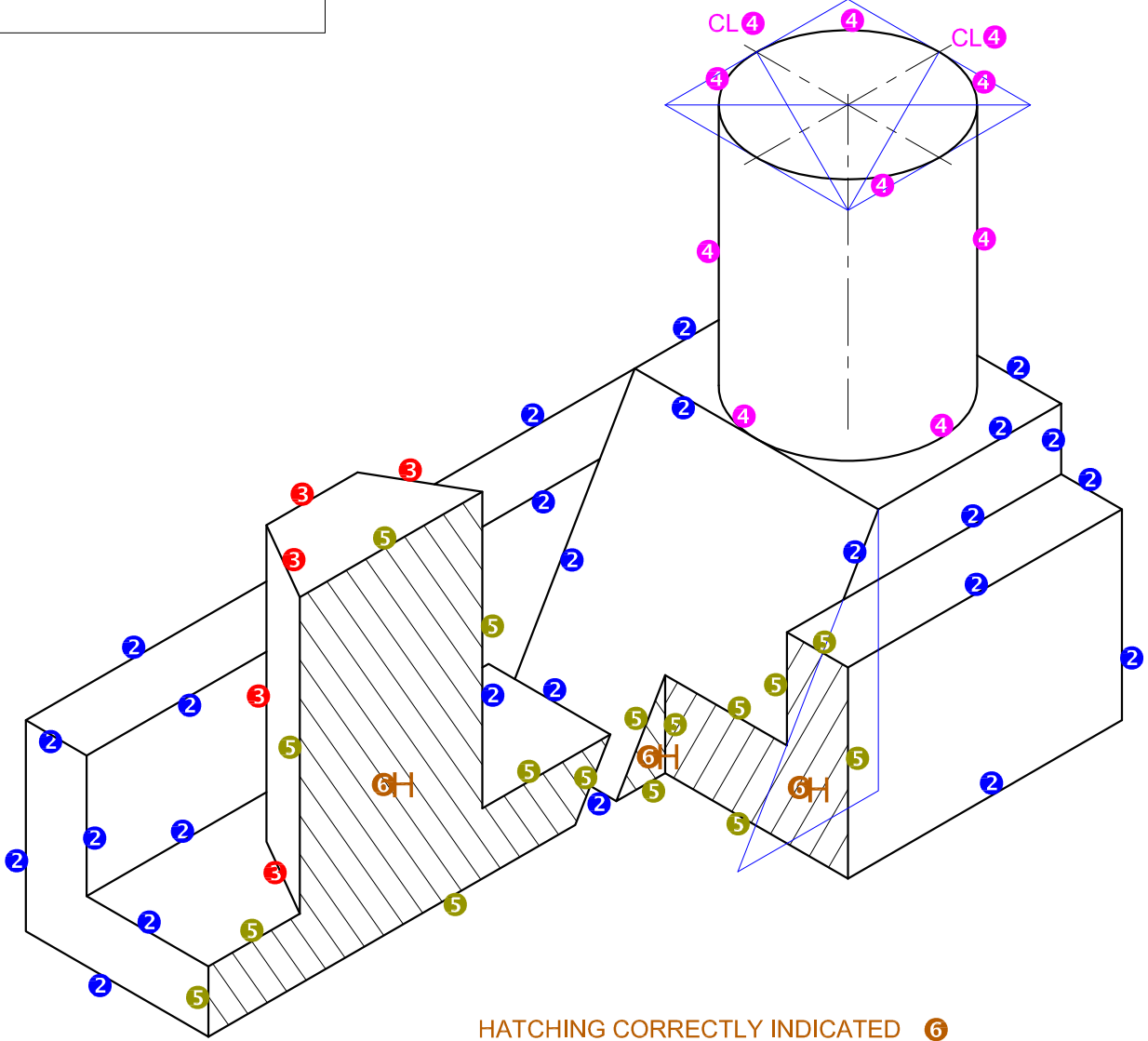
- 3. CAM PROFILE**
- ROLLERS 2
 - CURVES 4
- 6

PAPER 2 QUESTION 2.2
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ASSESSMENT CRITERIA 2.2		
1	CONSTRUCTION + FOLLOWER + DIRECTION	8
2	PLOTTING	7
3	CAM PROFILE	6
SUBTOTAL 2.2		21



CIRCLE CONSTRUCTIONS ✓4



HATCHING CORRECTLY INDICATED 6

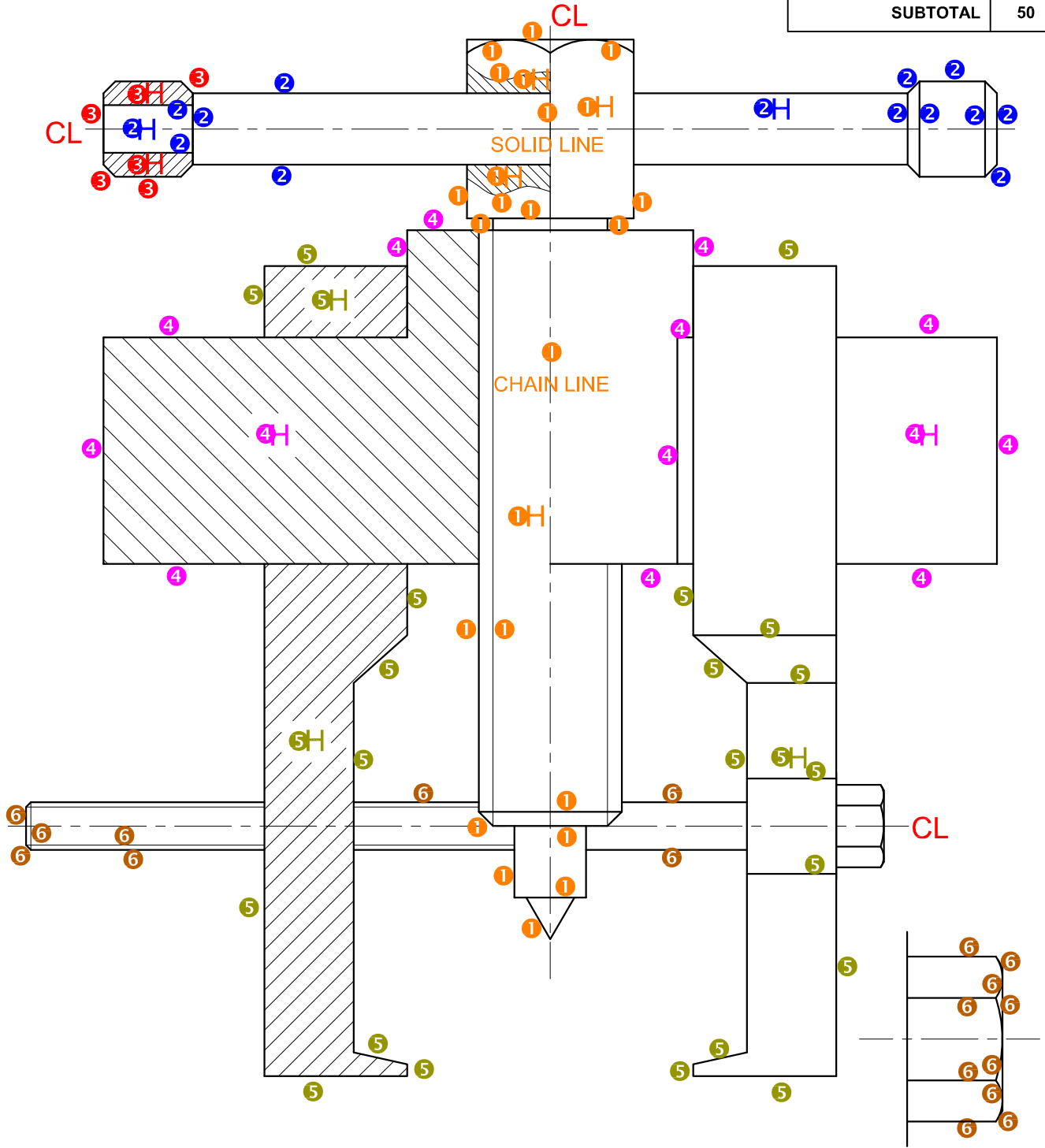


P CORRECT PLACEMENT ON POINT P ✓1

ASSESSMENT CRITERIA		
1	AUXILIARY VIEW + PLACING	3
2	ISOMETRIC + NON-ISOMETRIC	12 ½
3	HEXAGON	2 ½
4	CIRCLES + CONSTRUCTION + CL	6
5	SECTION	8
6	HATCHING	2
PENALTIES (-)		
TOTAL		34

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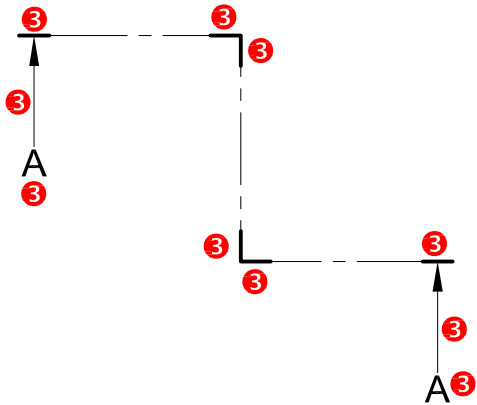
ASSESSMENT CRITERIA		
SECTIONAL FRONT VIEW		
1	WORM SCREW	12
2	LEVER	7
3	END RING	3
4	BEAM	7
5	STRONG ARM	12
6	M8 BOLT	9
SUBTOTAL		50



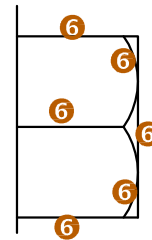
PAPER 2 QUESTION 4
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DETAIL OF MARK
 ALLOCATION FOR
 BOLT HEAD

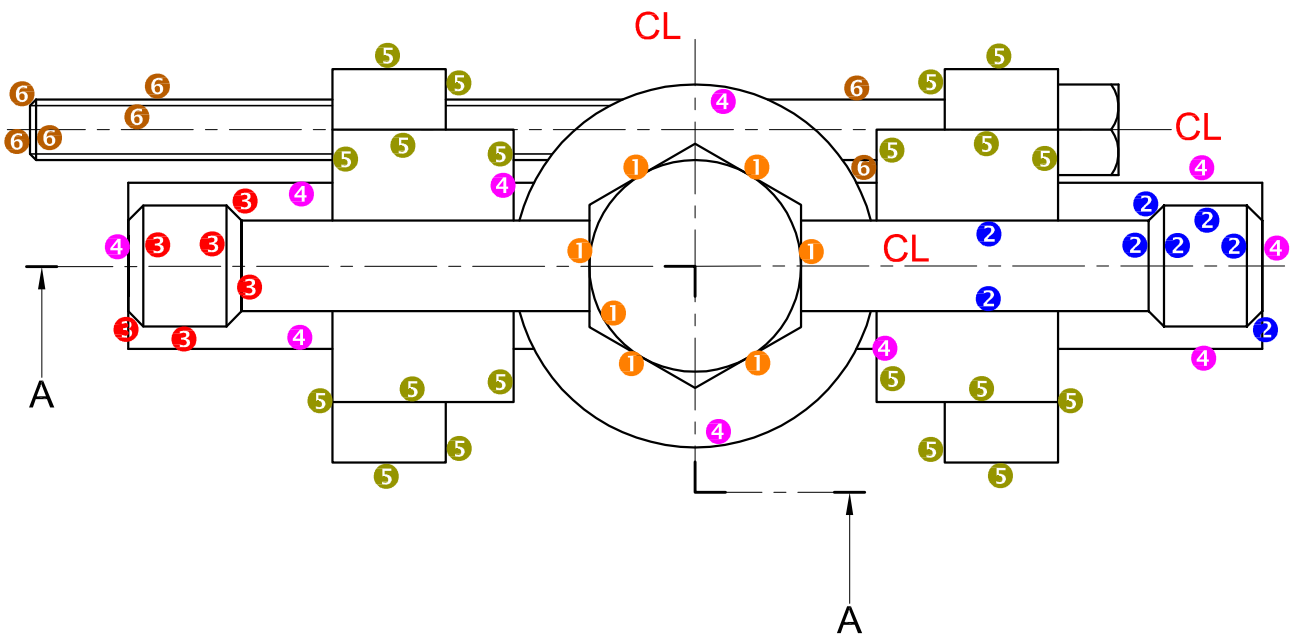
ASSESSMENT CRITERIA		
TOP VIEW		
1	WORM SCREW	3½
2	LEVER	4
3	END RING	3
4	BEAM	5
5	STRONG ARM	10
6	M8 BOLT	6½
SUBTOTAL		32



DETAIL OF MARK ALLOCATION FOR SECTION A-A



DETAIL OF MARK ALLOCATION FOR BOLT HEAD



1 MARK FOR EVERY COMPONENT CORRECTLY ASSEMBLED (7 PARTS - 1) = 6