



education

Department of
Education
FREE STATE PROVINCE

INSTRUCTIONS AND INFORMATION

1. Answer all the questions.
2. ALL drawings must be drawn to scale 1:1, unless stated otherwise.
3. ALL questions must be answered on the DIAGRAM SHEETS as instructed.
4. ALL the pages must be restaped in numeric sequence, irrespective of whether the question was attempted or not.
5. Time management is essential in order to complete all the questions.
6. Print your name and surname as well as the grade in the space provided on each page.
7. ALL answers must be drawn accurately and neatly.
8. ALL necessary construction and projection lines must be shown.
9. Plan the layout of each drawing accurately whether or not the starting position on the diagram sheet is shown.
10. Any details or dimensions not given must be assumed in good proportion.

ENGINEERING GRAPHICS AND DESIGN

GRADE 10

TEST

MARCH 2018

TIME: 1 HOUR

TOTAL: 50

FOR OFFICIAL USE ONLY								
QUESTION	MARKS OBTAINED			½	MODERATED			½
1								
2								
TOTAL								
		5	0			5	0	

FINAL CONVERTED MARK
60

CHECKED BY

This question paper consists of 4 pages

NAME & SURNAME	MEMORANDUM	GRADE	10	1
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**QUESTION 1: DRAWING PRINCIPLES
DIAGRAM SHEET 1**

Given:

Diagram sheet 1 shows the following:

- On a scale of 1:2 (half size), the edge of an A4 page and an example of a drawing frame and title block.

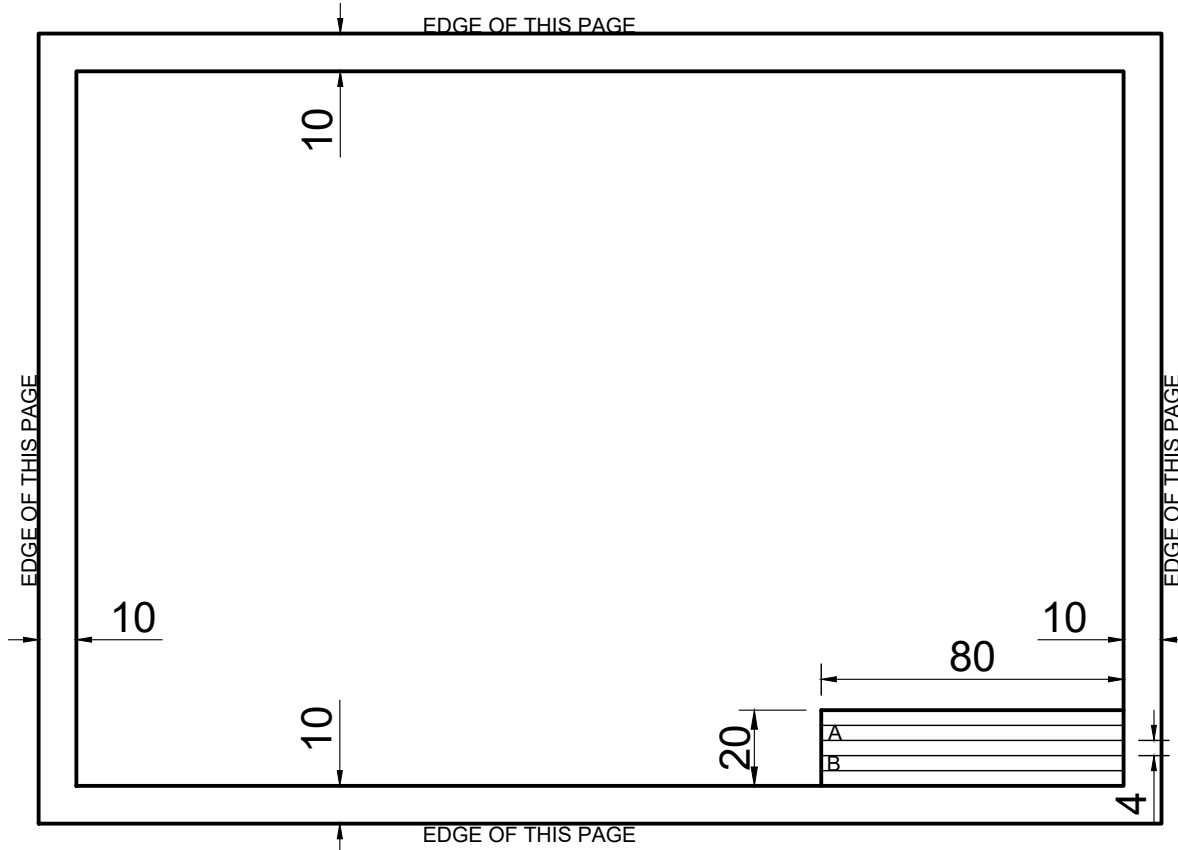
Instructions:

To a scale of 1:1 (actual size), use the drawing information and draw FREE HAND the following:

- The drawing frame.
- The title block and the guidelines 4 mm apart from each other.
- As contained in the SANS 0111 & 0143 guidelines, draw between 4 mm guidelines, your initials and surname in rule A and your grade in rule B.

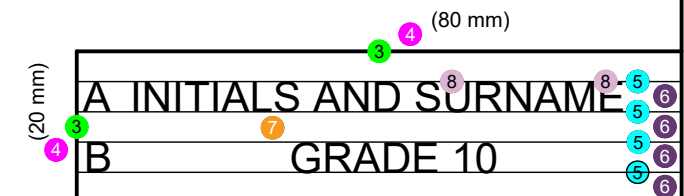
Note:

- Differentiate between A, B and C line types.
- Supply the drawing of the title (NAME BLOCK) and scale (SCALE 1:1) in the given area block.

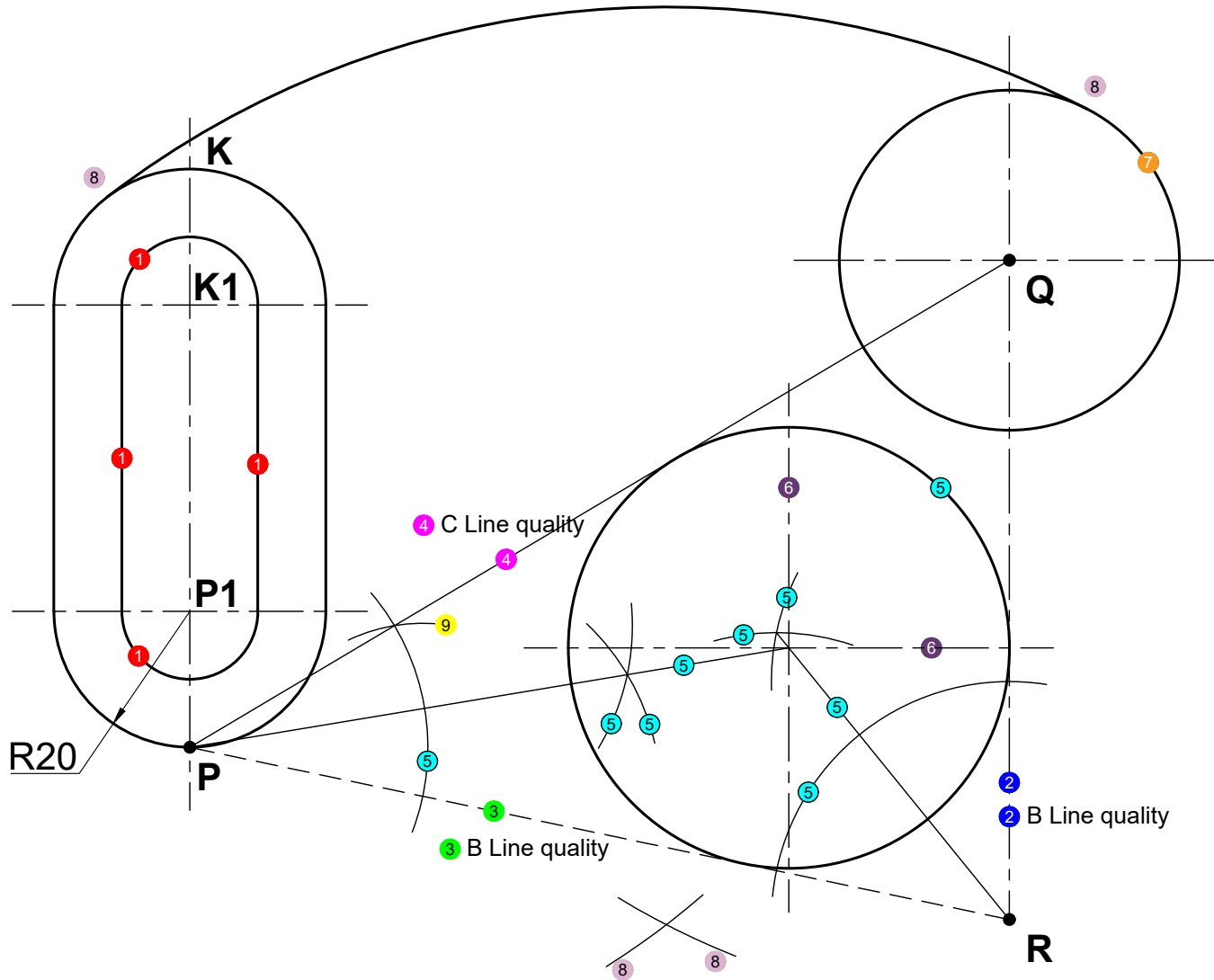


TITLE & SCALE		
7	NAME BLOCK	9
	SCALE 2:1	10

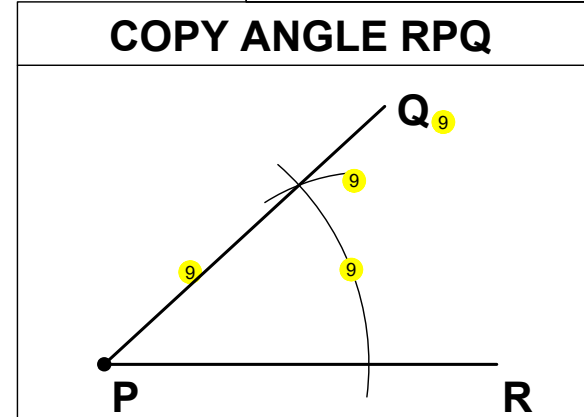
ASSESSMENT CRITERIA				
1	Frame A-lines & free hand ($\frac{4}{2}$)	1	2	
2	Frame 10 mm from edge ($\frac{4}{2}$)	2	2	
3	Name block A-lines & free hand ($\frac{2}{2}$)	3	1	
4	Name block size ($\frac{2}{2}$)	4	1	
5	Guide lines C-lines & free hand ($\frac{4}{2}$)	5	2	
6	Guide lines 4 mm apart ($\frac{4}{2}$)	6	2	
7	Lettering according to SANS 0111-0143 ($\frac{2}{2}$)	7	2	
8	Initials and surname ($\frac{2}{2}$)	8	1	
9	Drawing heading	9	1	
10	Drawing scale	10	1	
TOTAAL			15	



KRAM



CALCULATIONS	
TANGENT CIRCLE	
135 - 20	8
115	8
135 - 25	8
110	8



ASSESSMENT CRITERIA

Question 2.1 & 2.2	1	4		
Question 2.3	2	2		
Question 2.4	3	2		
Question 2.5	4	2		
Question 2.6	5	9		
Question 2.7	6	2		
Question 2.8	7	1		
Question 2.9	8	8		
Question 2.10	9	5		
TOTAL		35		