



**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 restapled 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
<u>60</u>

CHECKED BY

This question paper consists of 4 pages

NAME & SURNAME			GRADE	1

**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.

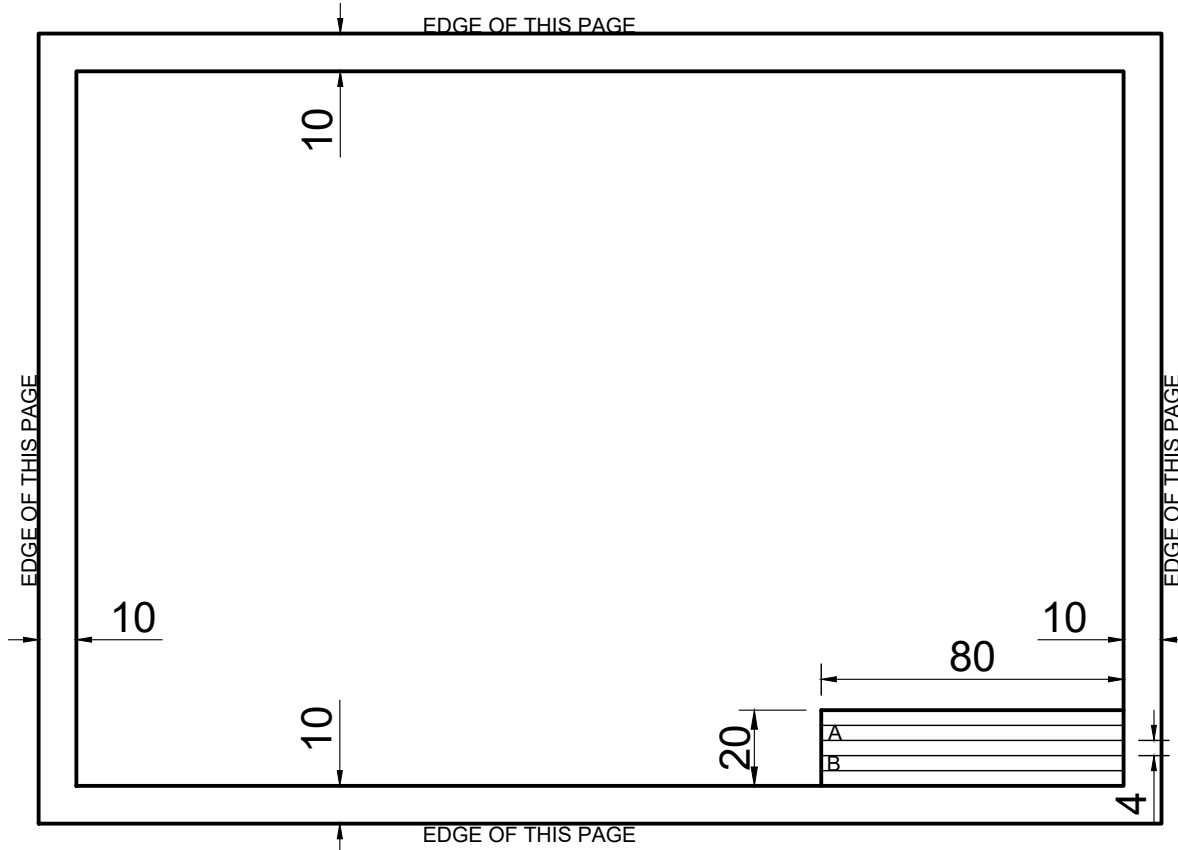
**Instructions:**

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:**

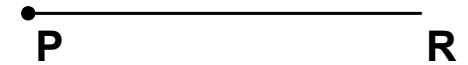
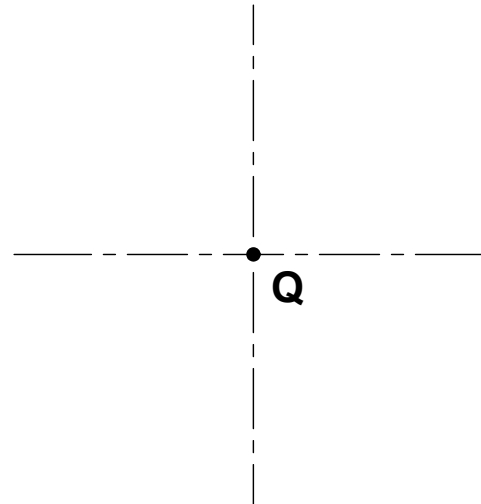
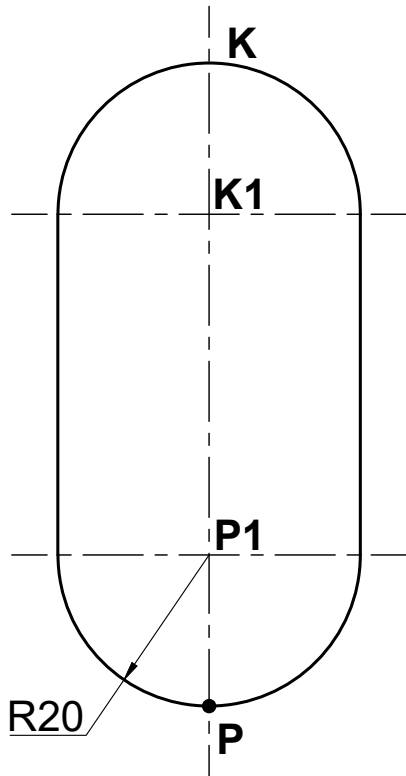
- Differentiate between A, B and C line types.
- Supply the drawing of the title (NAME BLOCK) and scale (SCALE 1:1) in the given area block.



TITLE & SCALE	

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





CALCULATIONS	
TANGENT CIRCLE	

**ASSESSMENT CRITERIA**

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

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DIAGRAM SHEET 3	ENGINEERING GRAPHICS AND DESIGN	MARCH 2018 TEST	NAME & SURNAME		GRADE	4
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