

MINISTRY OF EDUCATION, HERITAGE & ARTS

WORKSHEET 5 YEAR 13 2021

TECHNICAL DRAWING

STRAND 1: GEOMETRY

INSTRUCTIONS:

1. Use your exercise book to do all the questions given below.
2. All measurements are in millimeters except where stated otherwise
3. Show all construction lines clearly

NAME: _____

SECTION B

QUESTION 1

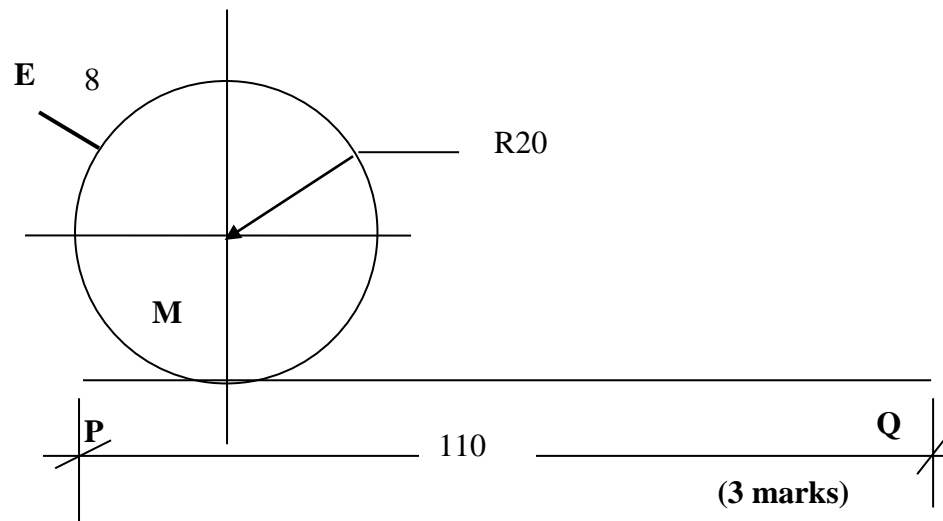
(20 marks)

PART A

(9 marks)

Given: The rolling circle M arm E and base line PQ.

Required: Plot the locus of point E on the arm attached to the circle M, as it rolls clockwise direction along the base line PQ for half a turn (8 marks)
Name the curve formed: _____ (1 mark)



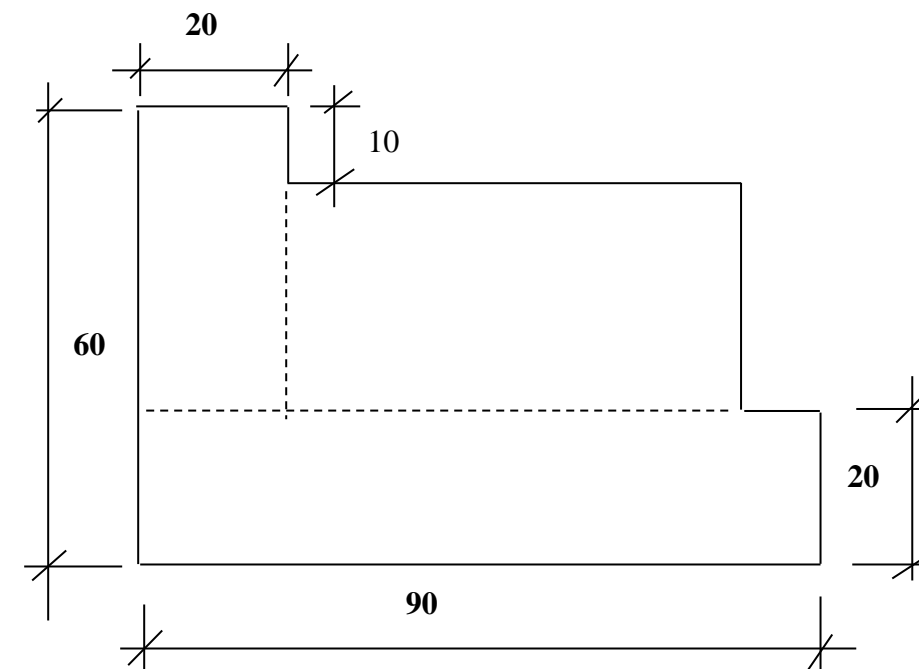
BQ1A			
1	Correct division of circle	1	
2	Correct divisions on rolling circle and labels shown	2	
3	Correct generating lines or method	2	
4	Accuracy of C ₁ to C ₆ locations	1	
5	Accuracy of P ₁ to P ₆ locations	1	
6	Correct shape of locus	1	
7	Correct name of the curve	1	
BQ1B			
8	Correct calculation	4	
8	Correct position of centroid	4	
BQ4C			
9	Correct method	1	
10	Correct 12 divisions	1	
11	Accuracy	1	

PART A

(8 marks)

Given: A composite block.

Required: Find the Centroid using Ratio method. (8 marks)



CALCULATION

AREA: A _____

AREA: B _____

AREA: C _____

RATIO: _____

PART C

Given: Laminae ABC drawn in 3rd angle orthographic projection

Required: Find the edge view of the laminae ABC.

Note: You may use your own measurements

