Section A (40 marks)		
Attempt ALL Questions in thi	is section	
Attempt ALL Questions in the	is section.	4. Find the anadient of the line assument
1.5		4. Find the gradient of the line segment
1. Factorize $3x^2 - 7x + 4$.		passing through the points
		A. (0, 4) and B. (3, 7)
	(4 marks)	
	,	
2. Find the perimeter of	24cm	5. In how many ways can 3 books be chosen
2. I find the perimeter of		
	23cm	from among 8 books?
37cm	25CIII	
37011		
	16cm	
		6. Find the values of X and Y from the
		matrices below.
2 Find the singular reason of the	ainala halarr	matrices below.
3. Find the circumference of the	e circle below,	5 43 57 203
take $\pi = \frac{22}{7}$.		$\begin{bmatrix} x & 4 \\ 9 & 17 \end{bmatrix} = \begin{bmatrix} 7 & 2y \\ 9 & 17 \end{bmatrix}$
7		l9 17J l9 17J
()		
D = 14cm		
\ /		

7. Using special angles find (a). cos 135 ⁰	(b). Differentiate $y = x^2 - 4x$ with respect to x
(b). Sin 300 ⁰	
	9. Simplify, giving results in power form (a). $7^3 \times 7^2 \times 7^4$
	(b). $(3^4)^2$
8 (a). Find $\lim_{x\to 1} 3x + 15$	
	10. Solve for x if x+3>10. Hence represent the results on number line.

Section B Attempt any Five Questions. 11. (a). Write the formula for area of a triangle	(b). Given a trapezium in which the two parallel sides are of length 4cm and 6cm. If the height (width) of the trapezium is 3cm. Calculate the area of this trapezium.			
(b). Calculate the area of the below triangle.				
^ \				
3cm				
↓ <u> </u>				
	13. (a). Find the stationary point on the curve			
	$y = x^3 - 3x^2$			
12 (a). The shaded area shown below contains				
six trapezia each of equal width h and the				
ordinates are y_1 , y_2 , y_3 , y_4 , y_5 and y_6 . Find the total area.				
A the total area.				
y = f(x)				
$\begin{vmatrix} \mathbf{y}_1 & \mathbf{y}_2 & \mathbf{y}_3 & \mathbf{y}_4 & \mathbf{y}_5 & \mathbf{y}_6 \end{vmatrix}$				

							(b). I	ndicate the median class
(b). Hence state the maximum and minimum points					and n	ninimum		
				4, -2, - ow for		3 . apping $x \rightarrow$		a). Differentiate $y = x^3 - 2x^2 + 5x + 1$ respect to x.
x + 3.								
		nain	X + 3		Rai	nge		
=	-4 -2			<u>-</u>	- - 1			
=	-2 -1		-2 + 3 -1 + 3					
-	0							
<u>-</u>	2		2 + 3					
<u>_</u>	3				- 6			
15. Tl	he ta	ble be	low sh	ows the	e mass	es of 40		
boys	takeı	n at rar	ndom f	rom a g	group (of boys.		Find the gradient when (i) $x = 0$ and $x = -$
Masse		20 - 25	26 - 31	32 - 37	38 - 43		1 	
Frequ ncy	ie	10	5	20	5			
Calcu	ılate							
			tic mea	an of th	e mass	ses		

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17. A region is defined by the inequalities $x \le 4$, $y \ge -3$ and $3x + 2y \le 6$.

Plot a graph for the inequalities and shade out the unwanted region. (Graph paper is required).