

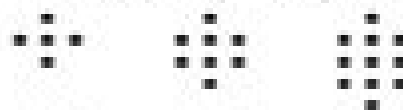
0 Level Math

4024/12

Paper 1

May June 2022

2. Consider the sequence of patterns using counters.



Pattern 1 Pattern 2 Pattern 3

Fig. 1 Complete the table

Pattern number	1	2	3	4	5
Number of counters	4	9	16	25	36

3. Find an expression, in terms of n , for the number of counters in Pattern n .

No. of Counters in n th Pattern $a + bn$
 $a_n = 2 + 3n$

$2 + 3n$

4. Answer the following



DO NOT WRITE IN THESE SPACES

A. B. Find the angle at the center, $\angle AOB$, of the first side.

5. The graph of $y = \frac{1}{2}x^2 - 3x + 2$ is shown below.



$\frac{1}{2}x^2 - 3x + 2$

6. By drawing a tangent, estimate the gradient of the curve at $x = 4$.

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Emilie Sanchez

A red circular graphic with a gradient, appearing as a semi-circle or a partial circle, located to the right of the name bar.

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