

Centum Preparation 100 Days plan class 12 Maths

Q. No.	DAY - 12
63	<p>Example 2.19</p> <p>Show that $3z - 5 + i = 4$ represents a circle, and, find its centre and radius.</p>
64	<p>Example 2.20</p> <p>Show that $z + 2 - i < 2$ represents interior points of a circle. Find its centre and radius.</p>
65	<p>EXERCISE 2.6</p> <p>2. If $z = x + iy$ is a complex number such that $\operatorname{Im}\left(\frac{2z+1}{iz+1}\right) = 0$, show that the locus of z is $2x^2 + 2y^2 + x - 2y = 0$.</p>
66	<p>Example 2.21</p> <p>Obtain the Cartesian form of the locus of z in each of the following cases.</p> <p>(i) $z = z - i$ (ii) $2z - 3 - i = 3$</p>
67	<p>3. Obtain the Cartesian form of the locus of $z = x + iy$ in each of the following cases:</p> <p>(i) $[\operatorname{Re}(iz)]^2 = 3$ (ii) $\operatorname{Im}[(1-i)z + 1] = 0$</p> <p>(iii) $z + i = z - 1$ (iv) $\bar{z} = z^{-1}$.</p>

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68	<p>4. Show that the following equations represent a circle, and, find its centre and radius.</p> <p>(i) $z - 2 - i = 3$ (ii) $2z + 2 - 4i = 2$ (iii) $3z - 6 + 12i = 8$.</p>
69	<p>5. Obtain the Cartesian equation for the locus of $z = x + iy$ in each of the following cases:</p> <p>(i) $z - 4 = 16$ (ii) $z - 4 ^2 - z - 1 ^2 = 16$.</p>
End of chapter 2	