M A T H E M A T I C S

(DAILY PRACTICE PAPER) [CLASS XI]

COMPLEX NUMBER

IMPORTANT QUESTION

1. Find the value of x+y If $x+iy = i^{2021} + i^{2022} + i^{2023} + i^{2024}$

2. If $(1+i)^{2024} / 2^{1012} = x+iy$ find the value of x-y

3. If $(1+i / 1-i + 1-i / 1+i) = x+iy$ find x*y

4. If $z= \sqrt{2}+i\sqrt{3}$ find the value of $z.\bar{z}$

5. find x+y, If $i^{99} + i^{100} + i^{101} + ...+ i^{199} = x+iy$

6. If $z_1 = 2+3i / 1-5i$, $z_2 = 5-i / 3-2i$, find $|z_1.z_2|$

7. find the Re(z), If $z = (1+2i)(2-3i)$

8. If $z = i-1 / \cos\pi/3 + i \sin \pi/3$ find modulus of z

9. find the modulus of $w = (1+ \cos 2\pi/3 + i \sin 2\pi/3)$

10. find the value of x+y, If $(2x-3) + i(y-4) = 3+4i$

11. find the least +ve value of n such that $(1+i / 1-i)^n = 1$.

12. find the value of $\sqrt{-1} \times \sqrt{-4} \times \sqrt{-9} \times \sqrt{-25}$

13. find the argument of $z = -\cos \pi/3 - i \sin \pi/4$

14. If $z = 3-12i$, find the value of $|z+2|$

15. If $z = -6+13i$, find the value of $|z-5i|$

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