

Sample test on Complex Numbers for Class XI-XII

1. If $|z_1 - 1| \leq 1$, $|z_2 - 2| \leq 2$ and $|z_3 - 3| \leq 3$ then the maximum value of $|z_1 + z_2 + z_3|$ is
 (a) 13 (b) 14 (c) 12 (d) 6
2. All the possible values of 'k' for which $|z + i| - |z - i| = k$ represents hyperbola is
 (a) $0 < k < 2$ (b) $-2 < k < 2$ (c) $k \in (-2, 2) - \{0\}$ (d) $1 < k < 2$
3. The inequality $|z - 4| > |z + 2|$ represents
 (a) $\text{Re}(z) > 0$ (b) $\text{Re}(z) < 0$ (c) $\text{Re}(z) > 1$ (d) none of these
4. If $|z - i| < 1$, then the value of $|z + 12 - 6i|$ is less than
 (a) 14 (b) 2 (c) 28 (d) none of these
5. Radius of the circle $z \bar{z} + z + \bar{z} - iz + i\bar{z} - 7 = 0$ is
 (a) 2 units (b) 3 units (c) 1 unit (d) 4 units
6. Sum of the squares of the greatest and the least value of $|z|$ satisfying the equation $\left|z - \frac{4}{z}\right| = 2$ is
 (a) 3 (b) 2 (c) 4 (d) none of these

	A	B	C	D
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