

## Worksheet: Complex Numbers and Quadratic Equations

Uttar Pradesh State Board · Class 11 · Mathematics · 3 questions · 12 marks

Name: \_\_\_\_\_

Date: \_\_\_\_\_

Score: \_\_\_\_\_ / 12

**Q1.** Evaluate:  $i^{2019} + i^{2020} + i^{2021} + i^{2022}$  [2 marks]

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**Q2.** Express  $(3+4i)/(12i)$  in the form  $a+ib$  and find its modulus. [4 marks]

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**Q3.** Solve:  $x^2 - 2x + 5 = 0$  and verify that the roots are complex conjugates. [6 marks]

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