

King Fahd University of Petroleum and Minerals
Prep-Year Math Program
Math (001)-Term (181)
Recitation (1.5)

Question 1: If $\frac{\sqrt[3]{-125i} - \sqrt{-25}\sqrt{-1}}{(2i-1)(2i+1)(-i)^{103}} = x + iy$ then calculate $y - x = ?$

Answer: 0

Question 2: If $Z = \left(\frac{2+i}{1-i}\right)^2 + \left(\frac{1+i}{1-i}\right)^{21}$, then find \bar{Z} .

Answer: $\bar{Z} = -2 - \frac{5}{2}i$

Question 3: Find the reciprocal of the complex number $(\sqrt[3]{-27} + \sqrt{-9})i + \sqrt{(-5)^2}$

Answer: $\frac{2}{13} + \frac{3}{13}i$

Question 4: Find the sum of all roots of the equation $7x^2 + 2x + 3 = -1$

Answer: $-\frac{2}{7}$