
Math B Week 8 Homework: Summation
Due Monday 3 April 2006
Mr. Quinn

Part I: Simplify these expressions involving i .

i^{54}

i^{21}

i^{85}

i^{381}

i^{100}

$(2 + 4i) - (11 + 3i)$

$(5 - 2i) + (7 + i)$

$(8 - 7i) \times (6 - 8i)$

$(3 + 6i) - (4 + i)$

$(8 - 6i) + 2i$

$4 \cdot (3 + 3i)$

$(5 - 2i) + (4 + 8i)$

$2 \times (1 + 2i)$

$(7 - 8i) \times (2 + 3i)$

$i + (6 + i)$

$2i \times (4 - 2i)$

$(4 + i) \times (5 - i)$

Part II: Compute the values of these sums.

$$\sum_{x=5}^7 2x - 4$$

$$\sum_{x=0}^2 x + 1$$

$$\sum_{x=3}^5 (x - 3)^2$$

$$\sum_{x=-4}^2 x^2 + 2$$

$$\sum_{x=0}^6 x^3$$

$$\sum_{x=4}^7 i^x$$

$$\sum_{x=0}^2 (x + 2i)^x$$

$$\sum_{x=-1}^5 (x + 2)^3$$

$$\sum_{x=2}^5 (x + 1)^x$$

$$\sum_{x=0}^3 (3x^2 + 4x - 6)$$

$$\sum_{x=-6}^{-2} 7x$$

$$\sum_{x=0}^2 (i + 1)^x$$

$$\sum_{x=2}^5 (3x^3 - 8)^2$$

$$\sum_{x=-2}^2 (7 - 2x)^2$$

$$\sum_{x=2}^7 8$$