

氏名 _____

■ 複素数の計算

例題

$$(1) \quad (4-5i) + (1+3i) = (4+1) + (-5+3)i \\ = 5-2i$$

$$(2) \quad (4-5i) - (1+3i) = 4-5i-1-3i \\ = (4-1) + (-5-3)i \\ = 3-8i$$

$$(3) \quad (4-5i)(1+3i) = 4 \times 1 + 4 \times 3i - 5i \times 1 - 5i \times 3i \\ = 4 + 12i - 5i - 15i^2 \\ = 4 + 12i - 5i - 15 \times (-1) \\ = 4 + 12i - 5i + 15 \\ = 4 + 15 + 12i - 5i \\ = 19 + 7i$$

(7) $(1+3i)(2+4i)$

(8) $(2+6i)(3-2i)$

1 次の計算をなさい。

(1) $(2+3i) + (5+8i)$

(2) $(1+2i) + (8-6i)$

(9) $(2+3i)(2-3i)$

(10) $(1+2i)^2$

(3) $(8+3i) - (4+6i)$

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

(11) $1+i+i^2+i^3$

(12) i^{50}