複素数６（分数の和と差・分母が共役ではない） その１

(1) $\dfrac{1-3i}{2+i}-\dfrac{7+6i}{1-2i}=\dfrac{(1-3i)(2-i)}{2^2+1^2}-\dfrac{(7+6i)(1+2i)}{1^2+(-2)^2}=\dfrac{-1-7i}{5}-(-1+4i)=$

(2) $\dfrac{3-i}{1+2i}+\dfrac{3+i}{1-i}$

(3) $\dfrac{-5+2i}{3+i}+\dfrac{2-3i}{9-7i}$

(4) $\dfrac{9+7i}{1-2i}-\dfrac{1+2i}{2-3i}$

(5) $\dfrac{7-6i}{2+i}-\dfrac{6+5i}{1+3i}$

(6) $\dfrac{-3+4i}{1-i}-\dfrac{2+7i}{2-i}$

(7) $\dfrac{-1+i}{3+2i}-\dfrac{1-i}{5+i}$

複素数６（分数の和と差・分母が共役ではない） その２

(1) $\dfrac{-3+2i}{1-3i}-\dfrac{2-3i}{2-i}=\dfrac{(-3+2i)(1+3i)}{1^2+(-3)^2}-\dfrac{(2-3i)(2+i)}{2^2+(-1)^2}=\dfrac{-9-7i}{10}-\dfrac{7-4i}{5}=$

(2) $\dfrac{-3-7i}{2+i}+\dfrac{8+5i}{1-i}$

(3) $\dfrac{-5+3i}{1-2i}-\dfrac{4-9i}{3+i}$

(4) $\dfrac{-9+4i}{2+i}-\dfrac{3+2i}{1-2i}$

(5) $\dfrac{2+i}{1+3i}+\dfrac{1-i}{4-i}$

(6) $\dfrac{-1+8i}{2+i}+\dfrac{8+i}{1+2i}$

(7) $\dfrac{-2-i}{1+3i}+\dfrac{1-5i}{2-i}$

複素数６（分数の和と差・分母が共役ではない） その3

(1) $\dfrac{-5-i}{3-2i}-\dfrac{1+4i}{1-2i}=\dfrac{(-5-i)(3+2i)}{3^2+(-2)^2}-\dfrac{(1+4i)(1+2i)}{1^2+(-2)^2}=(-1-i)-\dfrac{-7+6i}{5}=$

(2) $\dfrac{1-2i}{3-i}-\dfrac{4+i}{3+2i}$

(3) $\dfrac{7+8i}{1-2i}+\dfrac{2-i}{1+i}$

(4) $\dfrac{4-3i}{8-i}+\dfrac{9+8i}{3-7i}$

(5) $\dfrac{1-7i}{2+i}+\dfrac{3-2i}{5+i}$

(6) $\dfrac{-1-i}{1-5i}-\dfrac{9+2i}{2-3i}$

(7) $\dfrac{-9+8i}{2-3i}+\dfrac{1+7i}{1-8i}$

複素数６（分数の和と差・分母が共役ではない） その４

(1) $\dfrac{1+5i}{1-8i}-\dfrac{3+7i}{2-i}=\dfrac{(1+5i)(1+8i)}{1^2+(-8)^2}-\dfrac{(3+7i)(2+i)}{2^2+(-1)^2}=\dfrac{-3+i}{5}-\dfrac{-1+17i}{5}=$

(2) $\dfrac{4-9i}{1+i}-\dfrac{8-i}{3-2i}$

(3) $\dfrac{5+i}{5-i}+\dfrac{7+i}{7-4i}$

(4) $\dfrac{3+7i}{1+i}+\dfrac{1+7i}{1-3i}$

(5) $\dfrac{1-8i}{3+2i}+\dfrac{6-i}{3-i}$

(6) $\dfrac{8+9i}{1-2i}-\dfrac{2+3i}{1-3i}$

(7) $\dfrac{-8+7i}{2+3i}+\dfrac{5-3i}{5-i}$

複素数６（分数の和と差・分母が共役ではない） その５

(1) $\dfrac{4-7i}{2+9i}-\dfrac{5-4i}{1-4i}=\dfrac{(4-7i)(2-9i)}{2^2+9^2}-\dfrac{(5-4i)(1+4i)}{1^2+(-4)^2}=\dfrac{-11-10i}{17}-\dfrac{21+16i}{17}=$

(2) $\dfrac{1-i}{3+2i}+\dfrac{3+4i}{2+3i}$

(3) $\dfrac{3-5i}{5-i}-\dfrac{2-i}{1-i}$

(4) $\dfrac{-7-2i}{2+3i}-\dfrac{7+i}{4-3i}$

(5) $\dfrac{5-9i}{5-i}-\dfrac{4-i}{5+3i}$

(6) $\dfrac{-7+3i}{2+3i}-\dfrac{1+4i}{3-5i}$

(7) $\dfrac{1+i}{1-3i}-\dfrac{4+5i}{2+i}$

複素数６（分数の和と差・分母が共役ではない） その6

(1) $\dfrac{8+9i}{1+i}-\dfrac{3+i}{2+i}=\dfrac{(8+9i)(1-i)}{1^2+1^2}-\dfrac{(3+i)(2-i)}{2^2+1^2}=\dfrac{17+i}{2}-\dfrac{7-i}{5}=$

(2) $\dfrac{6-i}{5-7i}+\dfrac{3+2i}{1-2i}$

(3) $\dfrac{-1-4i}{1-2i}+\dfrac{2+3i}{2-i}$

(4) $\dfrac{4+i}{3+5i}+\dfrac{9-7i}{1-2i}$

(5) $\dfrac{5-4i}{1-3i}-\dfrac{1-i}{3-i}$

(6) $\dfrac{4-7i}{2+3i}-\dfrac{6+i}{1-3i}$

(7) $\dfrac{-1+3i}{1-i}+\dfrac{2+3i}{3-i}$

複素数６（分数の和と差・分母が共役ではない） その７

(1) $\dfrac{-2-i}{4+7i}-\dfrac{5-3i}{1-i}=\dfrac{(-2-i)(4-7i)}{4^2+7^2}-\dfrac{(5-3i)(1+i)}{1^2+(-1)^2}=\dfrac{-3+2i}{13}-(4+i)=$

(2) $\dfrac{-2+7i}{9-5i}-\dfrac{4+9i}{1+i}$

(3) $\dfrac{7-9i}{1-i}-\dfrac{8-9i}{3-i}$

(4) $\dfrac{-3+4i}{7-6i}+\dfrac{5+3i}{1-4i}$

(5) $\dfrac{-7+9i}{2+3i}-\dfrac{1-i}{3+i}$

(6) $\dfrac{9-2i}{1+2i}-\dfrac{2+i}{1+4i}$

(7) $\dfrac{-1+9i}{2-i}+\dfrac{7-8i}{3+i}$

複素数６（分数の和と差・分母が共役ではない） その８

(1) $\dfrac{1+9i}{2-i}+\dfrac{4+7i}{3+i}=\dfrac{(1+9i)(2+i)}{2^2+(-1)^2}+\dfrac{(4+7i)(3-i)}{3^2+1^2}=\dfrac{-7+19i}{5}+\dfrac{19+17i}{10}=$

(2) $\dfrac{-3+i}{3-2i}-\dfrac{5-9i}{2+3i}$

(3) $\dfrac{4+9i}{4-i}+\dfrac{1-2i}{1+i}$

(4) $\dfrac{1-3i}{1+2i}-\dfrac{4+3i}{3+2i}$

(5) $\dfrac{-7+i}{3+i}+\dfrac{2+i}{1-i}$

(6) $\dfrac{5-9i}{1-3i}-\dfrac{9+7i}{3+4i}$

(7) $\dfrac{9+2i}{2+i}+\dfrac{1+i}{1+5i}$

複素数６（分数の和と差・分母が共役ではない） その**9**

(1) $\dfrac{2-i}{1-3i}+\dfrac{7+9i}{2-i}=\dfrac{(2-i)(1+3i)}{1^2+(-3)^2}+\dfrac{(7+9i)(2+i)}{2^2+(-1)^2}=\dfrac{1+i}{2}+(1+5i)=$

(2) $\dfrac{2+9i}{1+3i}+\dfrac{6-i}{2-i}$

(3) $\dfrac{-6-7i}{4-i}+\dfrac{4+9i}{3+i}$

(4) $\dfrac{2+3i}{2+i}+\dfrac{5+i}{1-i}$

(5) $\dfrac{-5+6i}{1+3i}-\dfrac{1-8i}{3+i}$

(6) $\dfrac{-6-5i}{4+i}+\dfrac{3-i}{1-i}$

(7) $\dfrac{4-i}{2-9i}+\dfrac{5-6i}{2+i}$