

Adding and Subtracting Complex Numbers (ALG.CN.04)

Perform each operation and write the result in standard form.

1. $(5 - 3i) - (8 - i)$ **$-3 - 2i$**

2. $(-8 - 5i) + (3 + 2i)$ **$-5 - 3i$**

3. $(9 - 2i) + (-3 - 5i) - (6 - i)$ **$-6i$**

4. $3i - (2 - 5i) + (6 - 2i)$ **$4 + 6i$**

5. $(-3 + \sqrt{-12}) + (9 + \sqrt{-27})$ **$6 + 5\sqrt{3}i$**

6. $(14 - \sqrt{-54}) - (-4 + \sqrt{-150})$ **$18 - 8\sqrt{6}i$**

7. $8i - (6 + 3i) + 2 - 5i$ **-4**

8. $-9 + \left(\frac{1}{2} + \frac{5}{6}i\right) - \left(\frac{5}{3} - \frac{5}{3}i\right) - \frac{i}{2}$ **$-\frac{61}{6} + 2i$**

9. $\left(-\frac{11}{6} + \sqrt{-\frac{45}{4}}\right) - \left(\frac{2}{3} - \sqrt{-\frac{20}{9}}\right)$ **$-\frac{5}{2} + \frac{13\sqrt{5}}{6}i$**

10. $(-4.2 + 0.7i) + (1.8 - 2.2i)$ **$-2.4 - 1.5i$**