Multiplying Complex Numbers

Multiply

1 $(-10 + 8i)(9 + 11i)$

2 $(7 - 6i)^2$

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

_____

_____

_____

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

5 $4i(\sqrt{3} - 5i)$

6 $(10 - \sqrt{-9})^2$

_____

_____

_____

7 $9i(4i - 12)$

8 $(-4 - i)(6 + 5i)8i$

9 $(11 - 6i)(5 + 2i)$

_____

_____

_____

10 $(-1 + i)(-6i - 5)$

11 $(-3i)(i)(13i)$

12 $(-15 - 9i)(2\sqrt{2})$

_____

_____

_____

13 $(-1 + 8i)(-1 + 8i)$

14 $(-9 + 3i)(-9 - 3i)$

15 $(10i)(15i)$

_____

_____

_____

Multiplying Complex Numbers

1. $(-10 + 8i)(9 + 11i)$

2. $(7 - 6i)^2$

3. $(8 - 3i)(4 - i)$

   $\underline{\quad -178 - 38i \quad}$ $\underline{\quad 13 - 84i \quad}$ $\underline{\quad 29 - 20i \quad}$

4. $(2 + \sqrt{-4})(3 + 5i)(-4 - i)$

5. $4i(\sqrt{3} - 5i)$

6. $(10 - \sqrt{-9})^2$

   $\underline{\quad 32 - 60i \quad}$ $\underline{\quad 20 + 4\sqrt{3}i \quad}$ $\underline{\quad 91 - 60i \quad}$

7. $9i(4i - 12)$

8. $(-4 - i)(6 + 5i)8i$

9. $(11 - 6i)(5 + 2i)$

   $\underline{\quad -36 - 108i \quad}$ $\underline{\quad 208 - 152i \quad}$ $\underline{\quad 67 - 8i \quad}$

10. $(-1 + i)(-6i - 5)$

11. $(-3i)(i)(13i)$

12. $(-15 - 9i)(2\sqrt{2})$

    $\underline{\quad 11 + i \quad}$ $\underline{\quad 39i \quad}$ $\underline{\quad -30\sqrt{2} - 18\sqrt{2}i \quad}$

13. $(-1 + 8i)(-1 + 8i)$

14. $(-9 + 3i)(-9 - 3i)$

15. $(10i)(15i)$

    $\underline{\quad -63 - 16i \quad}$ $\underline{\quad 90 \quad}$ $\underline{\quad -150 \quad}$