



Review. Perform the given operations.

a. $(4x+2)-(3x-8)$

b. $(4x+2)+(3x-8)$

c. $(4x+2)(3x-8)$

Complex Number Operations

When adding, subtracting or multiplying, treat complex numbers the same as like terms. The only difference is _____.

Examples: Perform each given operation. Simplify and leave answers in standard form $a+bi$.

A. $(5+i)+(1-2i)$

B. $(5+i)-(1-2i)$

Practice

10. $(5+3i)+(2+4i)$

11. $(3-2i)+(1+i)$

12. $(7+2i)-(3+3i)$

13. $(5+i)-(3-8i)$

14. $i+(11-5i)$

15. $i-(6+i)+(4-2i)$

Examples: Perform each given operation. Simplify and leave answers in standard form $a+bi$.

C. $2i(3-4i)$

D. $(1-4i)(3+5i)$

E. $(4-5i)(4+5i)$

Practice.

17. $3i(-1+2i)$

19. $(1+3i)(1-i)$

20. $(5-i)(1-2i)$

Algebra 2**4-8b Complex Numbers B: Add, Subtract, Multiply****A#3-4****Write the expression as a complex number in standard form.**

13. $(3 + 2i) + (-4 + i)$

14. $(5 - 2i) + (3 - 5i)$

15. $(6 + i) - (3 + 2i)$

16. $(3 - 2i) - (4 - 5i)$

17. $(2 + i) - (3 + 4i) + 3i$

18. $(2 + 6i)(1 - 2i)$

19. $(3 + 2i) + (-5 + 8i)$

20. $(-2 - 4i) + (3 - 6i)$

21. $(\frac{1}{3} + \frac{1}{2}i) + (\frac{2}{3} - 2i)$

22. $(4 + 2i) - (-1 + 5i)$

23. $(5 - 8i) - (2 + 9i)$

24. $(\frac{1}{2} - \frac{2}{3}i) - (\frac{2}{3} - \frac{1}{4}i)$

25. $(5 - 4i)(3 + 6i)$

26. $(2 + 5i)^2$

27. $(4 + 8i)(4 - 8i)$

31. $2(2 + i) + (1 - i)^2$

33. $(1 - 5i)(2 + i) - i(3 - 4i)$