

Bell Work

1. Write an example of a complex number.
2. Write an example of an imaginary number.
3. Find the roots of this function. Show all work.

$$f(x) = x^2 + 10x - 30$$

4. What is the complex conjugate of $-6 - 8i$?

Add or subtract each set of complex numbers.

$$(8 - 5i) + (-2 + 3i) = 6 - 2i$$

*Add or subtract the real numbers,
then add or subtract the
imaginary numbers.*

$$(12 - 4i) - (5 + i) = 7 - 5i$$

$$(-7 + 3i) + (6 - 4i) = -1 - i$$

$$(6 - 8i) - (-4i) = 6 - 4i$$

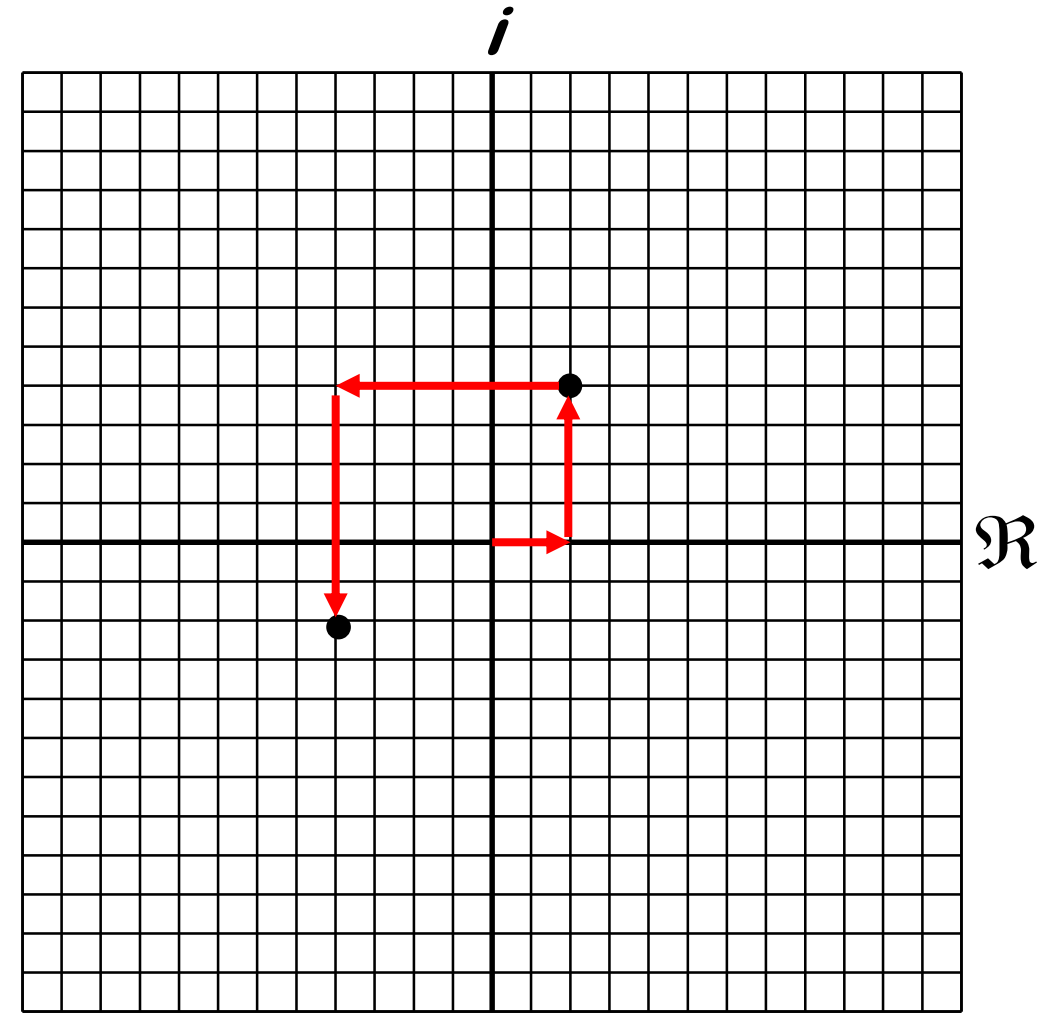
Add by graphing.

$$(2 + 4i) + (-5 - 6i)$$

Right 2, up 4

Left 5, down 1

$$-4 - 2i$$



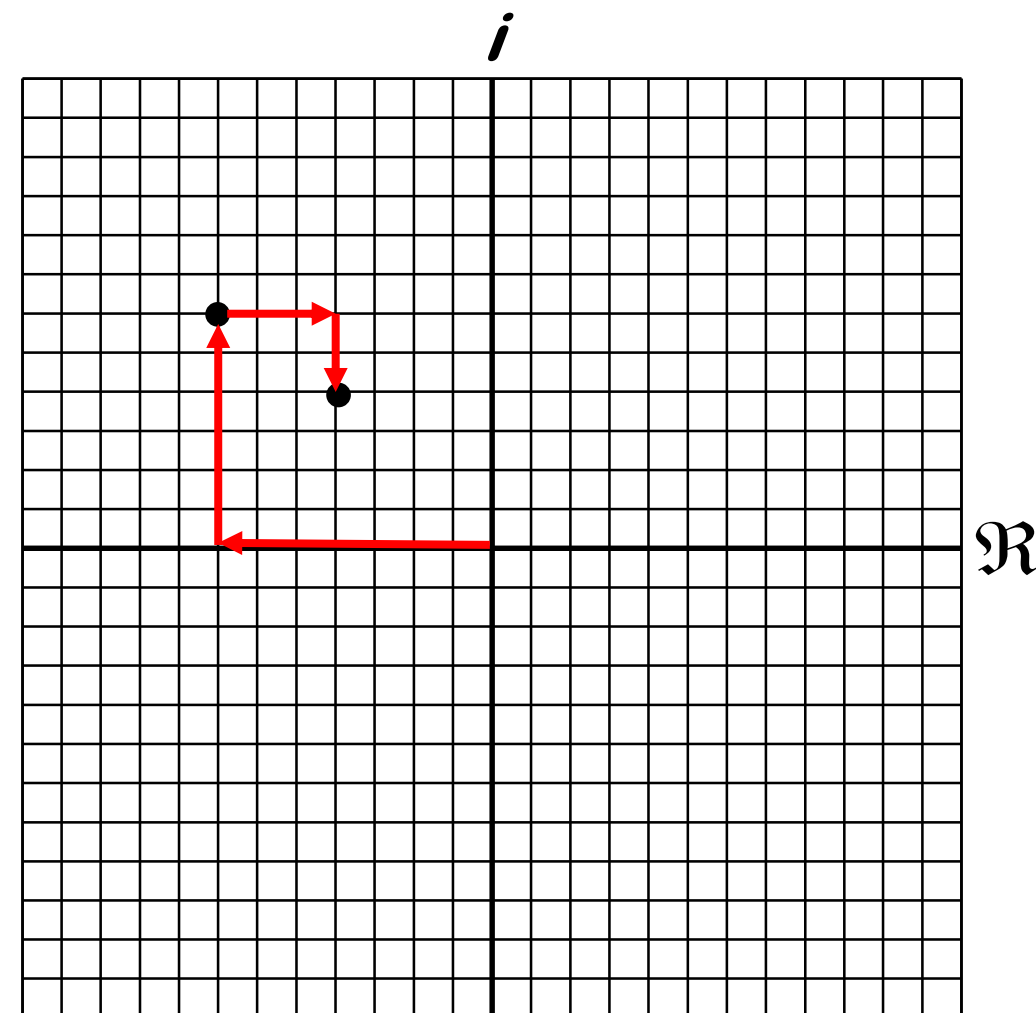
Add by graphing.

$$(-7 + 6i) + (3 - 2i)$$

Left 7, up 46

Right 3, down 2

$$-4 + 4i$$



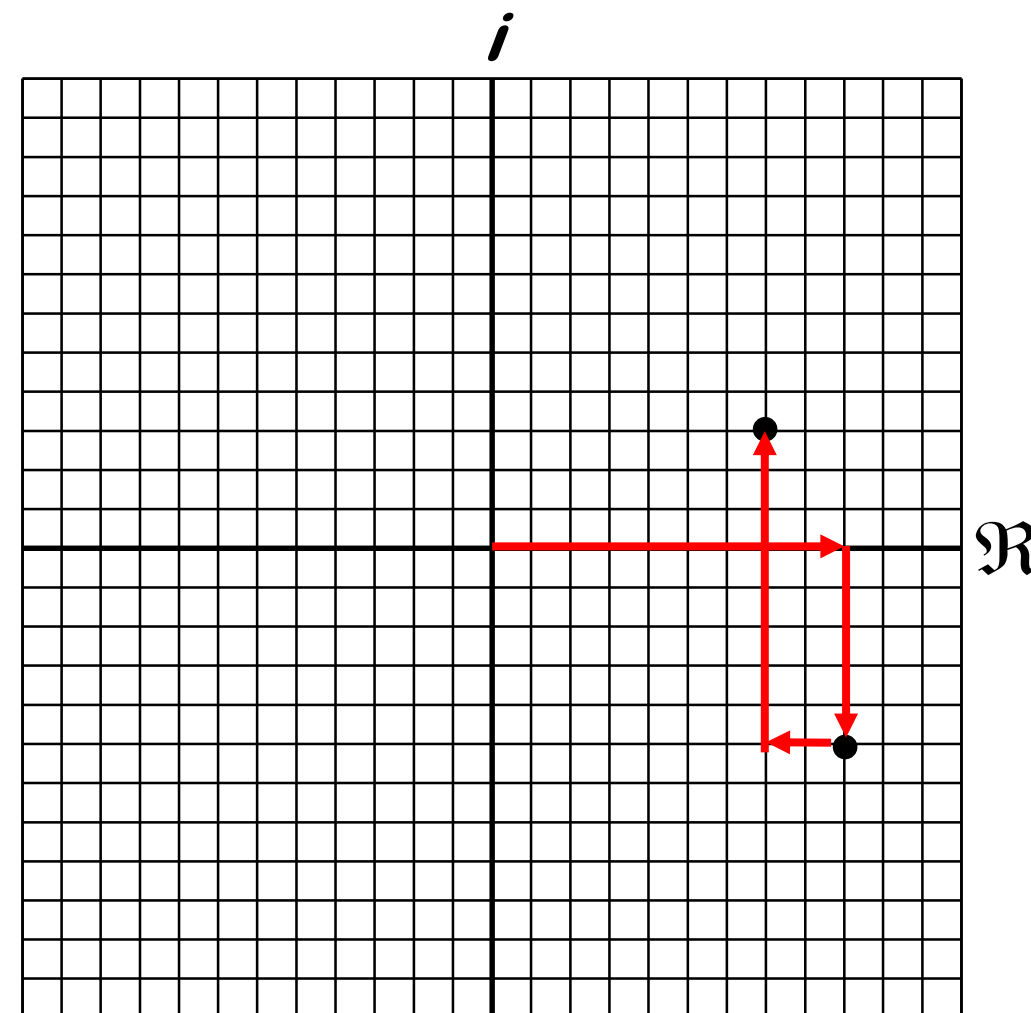
Add by graphing.

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

Right 9, down 5

Left 2, up 8

$$7 + 3i$$



Assignment:

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Add or subtract. Write the result in the form $a + bi$.

12. $(2 + 5i) + (-2 + 5i)$

13. $(-1 - 8i) + (4 + 3i)$

14. $(1 - 3i) - (7 + i)$

15. $(4 - 8i) + (-13 + 23i)$

16. $(6 + 17i) - (18 - 9i)$

17. $(-30 + i) - (-2 + 20i)$

Find each sum by graphing on the complex plane.

18. $(3 + 4i) + (-2 - 4i)$

19. $(-2 - 5i) + (-1 + 4i)$

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

Add or subtract. Write the result in the form $a + bi$.

46. $(8 - 9i) - (-2 - i)$

47. $4i - (11 - 3i)$

48. $(4 - 2i) + (-9 - 5i)$

49. $(13 + 6i) + (15 + 35i)$

50. $(3 - i) - (-3 + i)$

51. $-16 + (12 + 9i)$

Find each sum by graphing on the complex plane.

52. $(4 + i) + (-3i)$

53. $(5 + 4i) + (-1 + 2i)$

54. $(-3 - 3i) + (4 - 3i)$