

Graph each of the following numbers on the complex number plane. Label your graphs properly.

1. $8 + 5i$

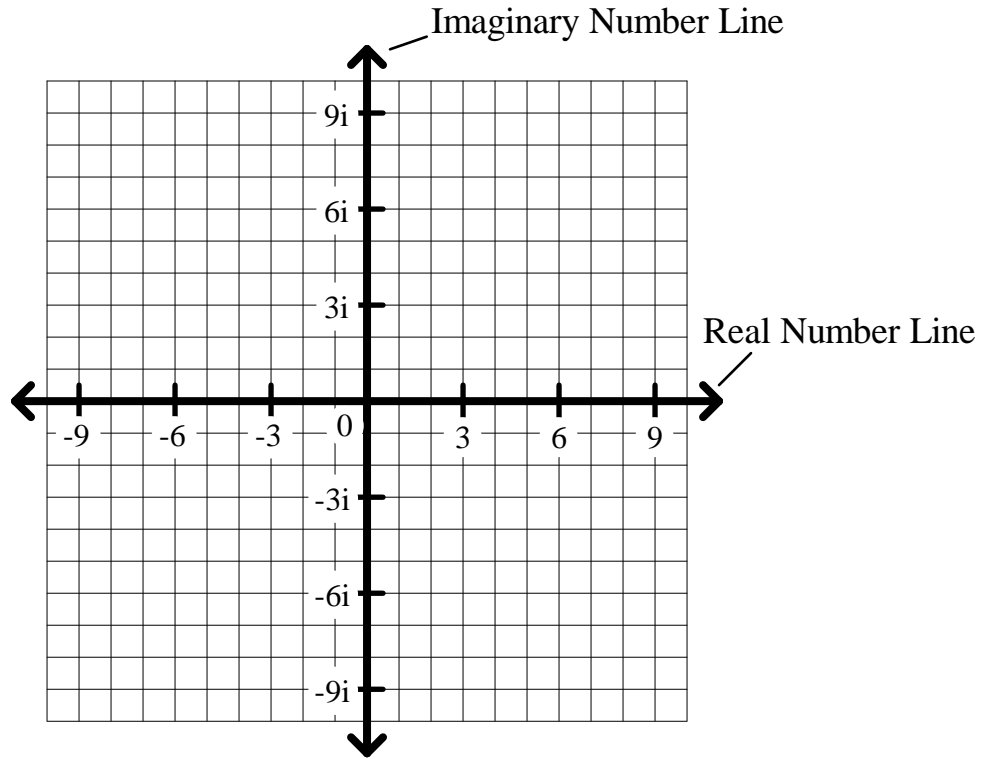
2. $-6 + 3i$

3. $-8 - 4i$

4. $3 - 7i$

5. -8

6. $6i$



Find the indicated absolute values. Express your answers in simplest form.

7. $|5 + 12i| =$ _____

8. $|-3 - 4i| =$ _____

9. $|6 - 2i| =$ _____

10. $|-2 + i| =$ _____

11. $|6i| =$ _____

12. $|-2| =$ _____

Find the additive inverse (opposite) of each of the following.

13. $3 + 7i$ _____

14. $-2 - 3i$ _____

15. $5 - i$ _____

16. -4 _____

17. $6i$ _____

18. $-6 + 3i$ _____

Perform the indicated operations. Express complex answers in $a + bi$ form.

19. $(5 - 3i) + (-8 + 6i) =$ _____

20. $(2 + 7i) + (-6 - i) =$ _____

21. $(4 - i) + (7 - 8i) =$ _____

22. $(9 + i) + (-8 + i) =$ _____

General Algebra II Worksheet #6 Unit 7 page 2

Perform the indicated operations. Express complex answers in a + bi form.

23. $(7 + 3i) - (2 + 5i) =$ _____

24. $(3 - 2i) - (-3 - 5i) =$ _____

25. $(-4 + 7i) - (2 - i) =$ _____

26. $(1 - 2i) - (5 + 3i) =$ _____

27. $6(4 - 5i) =$ _____

28. $-2(-5 + 3i) =$ _____

29. $-3i(5 - 2i) =$ _____

30. $3i(2 + i) =$ _____

31. $(1 - 2i)(3 + 4i) =$ _____

32. $(-2 + 3i)(2 - 5i) =$ _____

33. $(6 + i)(5 + 2i) =$ _____

34. $(4 - 3i)(1 - 4i) =$ _____

35. $(3 - 2i)(3 + 2i) =$ _____

36. $(-6 + i)(-6 - i) =$ _____

37. $(2 + 3i)(6 + 4i) =$ _____

38. $(4 + i)(3 - i) =$ _____

39. $(3 - 2i)^2 =$ _____

40. $(2 + 5i)^2 =$ _____

41. $(-1 + 3i)^2 =$ _____

42. $(-5 - i)^2 =$ _____

43. $(3 + 2i)^3 =$ _____

44. $(5 - i)^3 =$ _____