

Solve the equation.

1. $x^2 = -25$

2. $x^2 - 16 = 0$

3. $-4x^2 + 20 = -6x^2 - 12$

4. $-2(x - 1)^2 = 36$

Write the expression as a complex number in standard form.

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

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

7. $2i - (2 + 3i) + (1 - 8i)$

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

9. $(1 + i)(2 + 5i)$

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

11. $\frac{2}{3+i}$

12. $\frac{1-i}{2+2i}$

Find the absolute value of the complex number.

13. $|1 + i|$

14. $|5 + i|$

15. $|1 - i\sqrt{3}|$

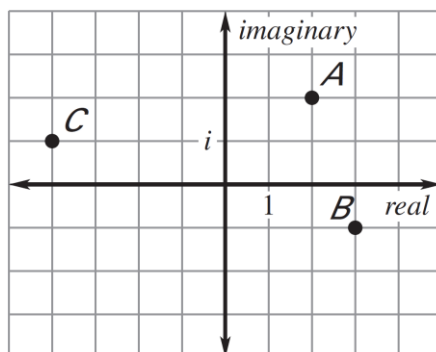
16. $|\sqrt{5} + 2i\sqrt{2}|$

17. Identify the complex numbers plotted below.

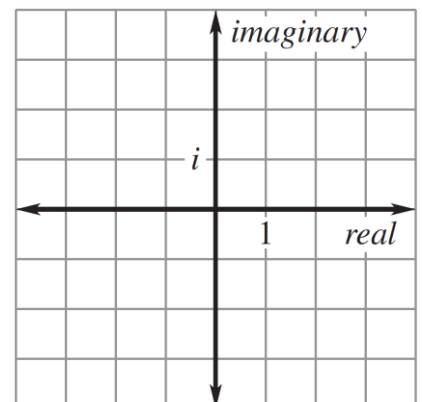
A. _____

B. _____

C. _____



18. Plot the numbers in the complex plane below.

A. $2i$ B. $3 + 3i$ C. $-1 - 4i$ 

Solve the equation by finding square roots.

19. $x^2 + 2x + 1 = 9$

20. $x^2 - 14x + 49 = 7$

21. $x^2 - x + \frac{1}{4} = 1$

Find the value of c that makes the expression a perfect square trinomial.
Then write the expression as a square of a binomial.

22. $x^2 + 4x + c$

23. $x^2 + 18x + c$

24. $x^2 - 5x + c$

Solve the equation by completing the square.

25. $x^2 - 2x - 2 = 0$

26. $x^2 + 2x + 5 = 0$

27. $x^2 + 8x - 2 = 0$

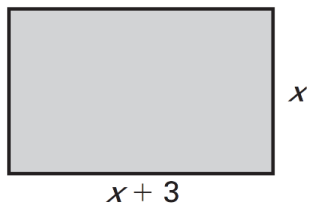
28. $x^2 - x + 1 = 0$

29. $3x^2 + 36x = -42$

30. $6x^2 - 12x - 18 = 0$

Find the value of x .

31. *Area of rectangle* = 40



32. *Area of triangle* = 16

