

Complex Numbers

1.1, 1.2

Simplifying/adding/subtracting/multiplying

Name _____

Write the complex number in standard form.

1. a. $\sqrt{-16}$ _____

2. a. $\sqrt{-18}$ _____

3. a. $4 + \sqrt{1-26}$ _____

b. $\sqrt{-64}$ _____

b. $\sqrt{-48}$ _____

b. $18 + \sqrt{57-48}$ _____.

c. $\sqrt{-169}$ _____

c. $\sqrt{-180}$ _____

c. $4 - \sqrt{17-49}$ _____

d. $\sqrt{-225}$ _____

d. $\sqrt{-168}$ _____

d. $18 + \sqrt{97-48}$ _____

Write the expression as a complex number in standard form.

4. a. $(16 - 26i) + (-3 + 27i)$

b. $(25 - i) + (-22 + 22i)$

5. a. $(1.5 - 4.2i) + (1.2 - 2.6i)$

b. $-4 + (-9 - 8i)$

6. a. $(-14 - 6i) - (28 + 13i)$

b. $(-8 + 9i) - (-17 - 9i)$

7. a. $-27i + (-27 - 26i) + 9$

b. $13 - (23 + 7i) - 25i$

8. a. $20 + (-23 - 8i) + 7i$

b. $-13 - (25 - 3i) + 25i$

Write the expression as a complex number in standard form.

9. a. $-6(8 - 2i)$

b. $6i(-3 - 7i)$

10. a. $(2 + 4i)(2 - 6i)$

b. $(-4 - 10i)(6 - 5i)$

11. a. $(2 + 8i)(-2 + i)$

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

12. a. $(8 - 2i)(8 + 2i)$

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

13. a. $(2 - 7i)^2$

b. $(-3 - 4i)^2$