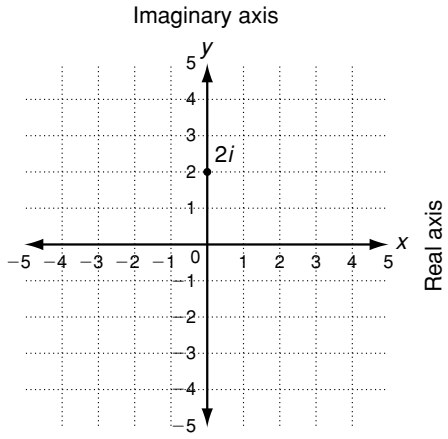
Name _____ Date _____ Class _____

LESSON 5-9

Practice A

Operations with Complex Numbers

Graph each complex number. The first one is done for you.



1. $2i$

2. $-4i$

3. $3 + i$

4. $-3 - 2i$

5. $2 + 3i$

6. $4 - 4i$

Find each absolute value. The first one is done for you.

7. $|6 + 2i|$ — $2\sqrt{10}$

8. $|3 + i|$ _____

9. $|3 - 4i|$ _____

Add or subtract. Write the result in the form *a* + *bi*. The first one is done for you.

10. $6i + 4i$ — $10i$

11. $-i - 3i$ _____

12. $(1 + 2i) + (3 + 4i)$ _____

13. $(2 - 7i) - (5 - 3i)$ _____

Multiply. Write the result in the form *a* + *bi*. The first one is done for you.

14. $2(3i)$ — $6i$

15. $-4(5i)$ _____

16. $2i(3 + 5i)$ _____

17. $(3 + i)(1 - 4i)$ _____

Simplify.

18. i^7 _____

19. $\frac{2 + 5i}{3i}$ _____

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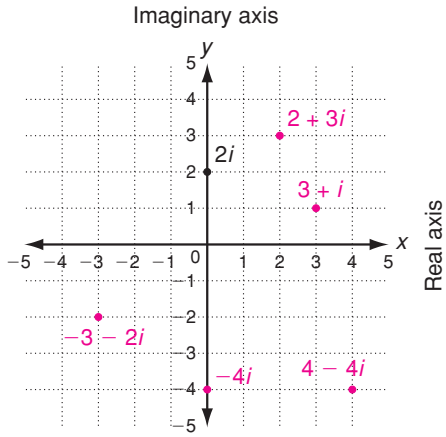
Practice A

Operations with Complex Numbers

Graph each complex number. The first one is done for you.



1. $2i$
2. $-4i$
3. $3 + i$
4. $-3 - 2i$
5. $2 + 3i$
6. $4 - 4i$

Find each absolute value. The first one is done for you.

7. $|6 + 2i|$ — $2\sqrt{10}$
8. $|3 + i|$ — $\sqrt{10}$
9. $|3 - 4i|$ — 5

Add or subtract. Write the result in the form $a + bi$. The first one is done for you.

10. $6i + 4i$ — $10i$
11. $-i - 3i$ — $-4i$
12. $(1 + 2i) + (3 + 4i)$ — $4 + 6i$
13. $(2 - 7i) - (5 - 3i)$ — $-3 - 4i$

Multiply. Write the result in the form $a + bi$. The first one is done for you.

14. $2(3i)$ — $6i$
15. $-4(5i)$ — $-20i$
16. $2i(3 + 5i)$ — $-10 + 6i$
17. $(3 + i)(1 - 4i)$ — $7 - 11i$

Simplify.

18. i^7 — $-i$
19. $\dfrac{2 + 5i}{3i}$ — $\dfrac{5}{3} - \dfrac{2}{3}i$