

Lesson 29: Complex Numbers

Simplify the expression in terms of i .

1) $\sqrt{-16}$

2) $\sqrt{-25}$

3) $\sqrt{-8}$

4) $\sqrt{-20}$

Simplify completely.

5) $\sqrt{-16} \cdot \sqrt{-25}$

6) $\sqrt{-25} \cdot \sqrt{-20}$

7) $\sqrt{-8} \cdot \sqrt{-5}$

8) $\sqrt{-20} \cdot \sqrt{-5}$

Perform the indicated operations. Write the answer in the form $a + bi$.

9) $(4 + 6i) + (-7 - 5i)$

10) $(4 + 9i) + (7 - i)$

11) $(4 + 6i) - (-7 - 5i)$

12) $(4 + 9i) + (7 - i)$

13) $(4 + 6i)(-7 - 5i)$

14) $(4 + 9i)(7 - i)$

15) $\frac{5}{4 + 3i}$

16) $\frac{-5}{4 - 3i}$