

Algebra 3 Assignment # 15

Simplify Completely:

(1) $\sqrt{-9} \cdot \sqrt{-81}$

(2) $\sqrt{-3} \cdot \sqrt{-2}$

(3) $(-3i^2)(5i)$

(4) $\sqrt{-8} + \sqrt{-18}$

(5) $(7+5i)+(3+2i)$

(6) $(8+2i)-(3+5i)$

(7) $(7+\sqrt{-16})+(3-\sqrt{-4})$

(8) $2i(3+5i)$

(9) $(3+2i)(2+3i)$

(10) $(5-2i)(3+4i)$

(11) $\frac{3+5i}{i}$

(12) $\frac{5+3i}{2+i}$

(13) $\frac{3-i}{3+i}$

(14) $(i^{13} - 2i^5 + 3i^{440})^2$

Answers:

1. -27

2. $-\sqrt{6}$

3. $15i$

4. $-i\sqrt{2}$

5. $10+7i$

6. $5-3i$

7. $2(5+1)$

8. $6i-10$

9. $13i$

10. $14i+23$

11. $5-3i$

12. $\frac{13+i}{5}$

13. $\frac{4-3i}{4}$

14. $8-6i$