

Topic 5.9 and 5.10
Complex Numbers
Homework

Name: _____

Date: _____

Simplify.

1. $\sqrt{-144}$

2. $\sqrt{-\frac{16}{25}}$

3. $(2i)^3$

4. $(\sqrt{-4})(\sqrt{-16})$

5. $(\sqrt{-6x})(\sqrt{-24x})$

6. $(4+5i)^2$

Solve.

7. $8x^2 + 32 = 0$

8. $-2x^2 - 50 = 0$

9. $-\frac{4}{9}x^2 - 12 = 0$

Simplify.

10. $\frac{4+3i}{7i}$

11. $\frac{6i+8}{5i}$

12. $\frac{5i}{2+i}$

13. $\frac{4i+3}{3i-1}$

14. $\frac{9-3i}{i-2}$

15. $\frac{7+2i}{\sqrt{3}-4i}$