

Algebra II Homework #18

- 1) Simplify: $\sqrt[3]{686x^5y^9a^2}$
- 2) Write $\sqrt[8]{x^5} \cdot \sqrt[3]{x^7}$ as a single radical.
- 3) Simplify: $(\sqrt{72} - \sqrt{128})(\sqrt{54} + \sqrt{96})$
- 4) Simplify: $\frac{7^{\frac{3}{4}}x^{\frac{1}{2}}y^{\frac{5}{8}}a^{\frac{2}{3}}}{(7^{\frac{3}{2}}x^{\frac{3}{4}}y^{\frac{1}{6}}a^{\frac{1}{2}})^{\frac{4}{3}}}$
- 5) Simplify: $3x\sqrt{147x} + 5\sqrt{363x^3} + 4x\sqrt{18x^2} - x^2\sqrt{50}$
- 6) Solve: $\sqrt{x+13} - \sqrt{x+6} = 7$
- 7) Simplify: $\sqrt{-98} \cdot \sqrt{-24}$
- 8) Solve: $\sqrt{3x+4} + 8 = 1$
- 9) Simplify: i^{115}
- 10) Solve: $\sqrt{2x+1} + 1 = \sqrt{x+12}$
- 11) Simplify: $(5i - 6)(4i + 3)$
- 12) Solve: $\sqrt{x+4} - 1 = \sqrt{x-1}$
- 13) Simplify: $\frac{7i - 4}{7i}$
- 14) Simplify: $\frac{i^{64}i^{71}}{i^{21}}$
- 15) Simplify: $6(4i - 1) - 3(5i + 4)$
- 16) Simplify: $\frac{6i + 13}{5i}$

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- 17) Simplify: $\sqrt{-507} \cdot \sqrt{-726}$
- 18) Solve: $\sqrt{2x+1} - \sqrt{x+4} = 1$
- 19) Simplify: $\frac{3i+5}{3i-4}$
- 20) Simplify: $(6i-1)(8i-9)$

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