

Name: _____ is Talented! 😊
Date: _____

Math 115 Spring 2026
Mr. Sahney

Standard 14 Practice

1. Simplify the given radical.

a. $\sqrt[4]{x^9}$

b. $\sqrt{36x^7y^{15}}$

c. $4\sqrt[5]{32x^3}$

2. Simplify the radical expressions completely:

a. $3\sqrt{7} + 5\sqrt{7}$

b. $\sqrt{8} + \sqrt{2}$

c. $10\sqrt{5} - 2\sqrt{45}$

d. $2\sqrt{3} + 4\sqrt{75}$

e. $5x\sqrt{45x^3} - 3\sqrt{20x^5}$

f. $2\sqrt{20y^2} + 3y\sqrt{80} - \sqrt{125y^2}$

3. Multiply and simplify completely:

a. $(9\sqrt{2})(4\sqrt{2})$

b. $8(-4 - \sqrt{6})$

c. $(-3 + \sqrt{6})(10 + \sqrt{6})$

d. $(5 + \sqrt{7})(5 - \sqrt{7})$