Lesson 10.3 Practice: Operations with Radical Expressions

School Launch · Algebra I · Unit 10: Radicals · Worksheet A

No calculator

Name _____ Date _____ Score _____ / 10

Show your work under each problem, one step per line, and check your answer. Word problems: name the unknown, write the equation, solve, and answer in a sentence with units.

1. Simplify: $4\sqrt{12} + 6\sqrt{27}$. EASY

2. Simplify: $5\sqrt{12} + 5\sqrt{27}$. EASY

3. Simplify: $4\sqrt{20} + 1\sqrt{45}$. EASY

4. Simplify: $(2 + \sqrt{2})(1 - \sqrt{2})$. MEDIUM

5. Simplify: $(6 + \sqrt{5})(3 - \sqrt{5})$. MEDIUM

6. Simplify: $(5 + \sqrt{5})(1 - \sqrt{5})$. MEDIUM

7. Simplify: $(6 + \sqrt{3})(5 - \sqrt{3})$. MEDIUM

8. Simplify: $\sqrt{3}(2\sqrt{6} - \sqrt{24}) + (1\sqrt{3})^2$. HARD

9. Simplify: $\sqrt{5}(4\sqrt{10} - \sqrt{40}) + (6\sqrt{5})^2$. HARD

10. Simplify: $\sqrt{3}(2\sqrt{6} - \sqrt{24}) + (3\sqrt{3})^2$. HARD