

## 11.1 Simplifying Radicals

Algebra 1

Name: \_\_\_\_\_

CA #2

Approximate the square root to one decimal. Justify your answer with inequalities.

1.  $\sqrt{94}$

2.  $\sqrt{66}$

3.  $\sqrt{50}$

4.  $\sqrt{132}$

5.  $\sqrt{6}$

Simplify the following radicals. You can use any strategy EXCEPT a calculator. 😊

6.  $\sqrt{147}$

7.  $\sqrt{288}$

8.  $\sqrt{15} \cdot \sqrt{35}$

9.  $\sqrt{28}$

10.  $3\sqrt{54} + 3\sqrt{24}$

11.  $\sqrt{45}$

12.  $2\sqrt{5} - 3\sqrt{20}$

13.  $4\sqrt{12} \cdot \sqrt{15}$

14.  $\sqrt{48} \cdot \sqrt{6}$

15.  $3\sqrt{8} - \sqrt{2}$

16.  $4\sqrt{45} \cdot \sqrt{10}$

**Answers to 11.1 CA #2**

1. $\sqrt{81} < \sqrt{94} < \sqrt{100}$ About 9.6	2. $\sqrt{64} < \sqrt{66} < \sqrt{81}$ About 8.1	3. $\sqrt{49} < \sqrt{50} < \sqrt{64}$ About 7.1	4. $\sqrt{121} < \sqrt{132} < \sqrt{144}$ About 11.5
5. $\sqrt{4} < \sqrt{6} < \sqrt{9}$ About 2.4	6. $7\sqrt{3}$	7. $12\sqrt{2}$	8. $5\sqrt{21}$
9. $2\sqrt{7}$	10. $15\sqrt{6}$	11. $3\sqrt{5}$	12. $-4\sqrt{5}$
13. $24\sqrt{5}$	14. $12\sqrt{2}$	15. $5\sqrt{2}$	16. $60\sqrt{2}$