

Name \_\_\_\_\_



Date \_\_\_\_\_

## Radicals

Simplify.

1. $(-1 + \sqrt{2})(-2 + \sqrt{2})$	2. $(-3 + \sqrt{15})(-7 + \sqrt{15})$
3. $(4 + \sqrt{21})(3 + \sqrt{21})$	4. $(\sqrt{8} + 9)(-3 + \sqrt{8})$
5. $(-2 + 9\sqrt{3})(-9 + 5\sqrt{3})$	6. $(-1 - 12\sqrt{6})(2 - 10\sqrt{6})$
7. $(-1 + \sqrt{10})(9 + \sqrt{10})$	8. $(-4 + \sqrt{15})(8 + \sqrt{15})$
9. $(7 + \sqrt{25})(-8 + \sqrt{25})$	10. $(-8 + \sqrt{2})(-7 + \sqrt{2})$
11. $(7 + 4\sqrt{6})(-9 + 7\sqrt{6})$	12. $(-2 - 2\sqrt{14})(-10\sqrt{14} - 2)$
13. $(5 + \sqrt{17})(-9 + \sqrt{17})$	14. $(\sqrt{20} - 4)(\sqrt{20} + 1)$
15. $(3 + \sqrt{2})(\sqrt{2} - 7)$	16. $(-4\sqrt{14} - 8)(2\sqrt{14} + 5)$
17. $(1 - 9\sqrt{3})(-3 - 5\sqrt{3})$	18. $(-9 - 9\sqrt{24})(3 + 6\sqrt{24})$
19. $(\sqrt{19} - 7)(-9 + \sqrt{19})$	20. $(-6 + \sqrt{16})(-3 + \sqrt{16})$