Name_____ Period _____

Squares and Square Roots

Algebra 11.1

Practice: Simplify completely. All answers should be left in radical form. DO NOT USE A CALCULATOR.

27. $\sqrt{x^6} =$

28. $\sqrt{x^7} =$

29. $\sqrt{x^8} =$

30. $\sqrt{x^9} =$

31. $\sqrt{xy^2} =$

32. $\sqrt{x^{25}y^{49}} =$

33. $\sqrt{4x^3} =$

34. $\sqrt{12x^9y^2} =$

35. $\sqrt{144x} \cdot \sqrt{x} =$

36. $\sqrt{21x} \cdot \sqrt{7x^9} =$

37. $3\sqrt{2} + 2\sqrt{2} =$

38. $\sqrt{12} + 5\sqrt{3} =$

39. $\sqrt{54} + \sqrt{24} =$

40. $\sqrt{9x} + \sqrt{4x} =$

41. $\sqrt{\dfrac{x^2}{y^4}} =$

42. $\sqrt{\dfrac{4x^9}{25}} =$

43. $\sqrt{\dfrac{a^9}{a^7}} =$

44. $\sqrt{\dfrac{1}{a^8}} =$

45. $\dfrac{\sqrt{x}}{\sqrt{4x}} =$

46. $\sqrt{\dfrac{12xy}{3y}} =$

47. $\dfrac{2}{\sqrt{x}} =$

48. $2\sqrt{7}\left(\sqrt{7} - 2\right) =$

49. $\dfrac{36\sqrt{2} + 8\sqrt{3}}{4} =$

50. $(\sqrt{3} - 4\sqrt{2})(\sqrt{3} + 4\sqrt{2}) =$