

Adding and Subtracting Surds Worksheet

Part 1: Simple collection of terms

$$5\sqrt{2} + 4\sqrt{2} =$$

$$5\sqrt{11} - 2\sqrt{11} =$$

$$4\sqrt{5} + 4\sqrt{5} =$$

$$2\sqrt{11} - 3\sqrt{11} =$$

$$5\sqrt{3} + 3\sqrt{3} =$$

$$3\sqrt{15} + 2\sqrt{15} =$$

$$4\sqrt{11} + 5\sqrt{11} =$$

$$4\sqrt{2} + 1\sqrt{2} =$$

$$4\sqrt{5} + 3\sqrt{5} =$$

$$2\sqrt{10} - 4\sqrt{10} =$$

$$3\sqrt{7} - 3\sqrt{7} =$$

$$5\sqrt{13} + 1\sqrt{13} =$$

$$2\sqrt{7} - 2\sqrt{7} =$$

$$5\sqrt{2} - 1\sqrt{2} =$$

$$2\sqrt{6} - 6\sqrt{6} =$$

$$2\sqrt{10} - 6\sqrt{10} =$$

$$5\sqrt{13} + 1\sqrt{13} =$$

$$5\sqrt{2} + 6\sqrt{2} =$$

$$5\sqrt{3} - 5\sqrt{3} =$$

$$3\sqrt{2} - 4\sqrt{2} =$$

$$5\sqrt{10} - 2\sqrt{10} =$$

$$2\sqrt{6} + 4\sqrt{6} =$$

$$1\sqrt{2} - 2\sqrt{2} =$$

$$4\sqrt{15} - 2\sqrt{15} =$$

Part 2: Simplify first, then collect:

$$\sqrt{3} + \sqrt{12} =$$

$$\sqrt{18} + \sqrt{50} =$$

$$\sqrt{24} - \sqrt{150} =$$

$$\sqrt{27} + \sqrt{48} =$$

$$\sqrt{24} + \sqrt{6} =$$

$$\sqrt{8} + \sqrt{72} =$$

$$\sqrt{32} - \sqrt{2} =$$

$$\sqrt{48} + \sqrt{75} =$$

$$\sqrt{12} - \sqrt{12} =$$

$$\sqrt{18} + \sqrt{8} =$$

$$\sqrt{24} - \sqrt{24} =$$

$$\sqrt{45} + \sqrt{45} =$$

$$\sqrt{5} + \sqrt{5} =$$

$$\sqrt{2} - \sqrt{50} =$$

$$\sqrt{75} + \sqrt{12} =$$

$$\sqrt{125} - \sqrt{20} =$$

$$\sqrt{12} + \sqrt{12} =$$

$$\sqrt{20} + \sqrt{80} =$$

$$\sqrt{80} + \sqrt{180} =$$

$$\sqrt{5} - \sqrt{125} =$$

$$\sqrt{18} + \sqrt{2} =$$

$$\sqrt{12} - \sqrt{3} =$$

$$\sqrt{75} - \sqrt{75} =$$

$$\sqrt{24} - \sqrt{216} =$$

Part 3: Simplify, then collect like terms. There may be more than one type of surd!

$$\sqrt{20} + \sqrt{5} + \sqrt{12} =$$

$$\sqrt{20} + \sqrt{45} - \sqrt{12} =$$

$$\sqrt{18} - \sqrt{125} - \sqrt{180} =$$

$$\sqrt{32} - \sqrt{20} + \sqrt{18} =$$

$$\sqrt{3} - \sqrt{27} + \sqrt{3} =$$

$$\sqrt{8} - \sqrt{5} + \sqrt{80} =$$

$$\sqrt{18} + \sqrt{20} - \sqrt{2} =$$

$$\sqrt{32} + \sqrt{18} + \sqrt{8} =$$

$$\sqrt{2} - \sqrt{75} - \sqrt{27} =$$

$$\sqrt{12} + \sqrt{75} - \sqrt{50} =$$

$$\sqrt{80} - \sqrt{8} - \sqrt{45} =$$

$$\sqrt{12} + \sqrt{32} - \sqrt{180} =$$

$$\sqrt{50} + \sqrt{75} + \sqrt{5} =$$

$$\sqrt{27} + \sqrt{45} + \sqrt{80} =$$

$$\sqrt{45} + \sqrt{80} - \sqrt{72} =$$

$$\sqrt{75} - \sqrt{8} + \sqrt{27} =$$

$$\sqrt{3} - \sqrt{2} + \sqrt{80} =$$

$$\sqrt{2} + \sqrt{75} + \sqrt{48} =$$

$$\sqrt{75} - \sqrt{32} - \sqrt{75} =$$

$$\sqrt{27} + \sqrt{45} + \sqrt{2} =$$

$$\sqrt{2} + \sqrt{32} + \sqrt{180} =$$

$$\sqrt{50} + \sqrt{50} - \sqrt{27} =$$

