



# Adding and Subtracting Radical Expressions

Version 2

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

Date: \_\_\_\_\_

Score: \_\_\_\_\_

Direction: Simplify by adding and subtracting the following radical expressions. Show all your work in the space provided.

1)  $-\sqrt{44} - 2\sqrt{99} + 2\sqrt{45} - \sqrt{20} =$

2)  $5\sqrt{48} - 3\sqrt{2} + 7\sqrt{75} + 2\sqrt{3} =$

3)  $-\sqrt{28} - 6\sqrt{63} + \sqrt{75} + 2\sqrt{147} =$

4)  $\sqrt{16x^{13}} + x^6\sqrt{x} - 3\sqrt{16y^9} + 2y^4\sqrt{y} =$

5)  $\sqrt{x^5} + 4\sqrt{y^3} - 2x^2\sqrt{9x} - 7y\sqrt{4y} =$

6)  $\sqrt{27a^5b^6c^7} - 2a^2b^3c^3\sqrt{3ac} + ab^3c^2\sqrt{75a^3c^3} =$



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Direction: Simplify by adding and subtracting the following radical expressions. Show all your work in the space provided.

1)  $-\sqrt{44} - 2\sqrt{99} + 2\sqrt{45} - \sqrt{20} =$

$$-8\sqrt{11} + 4\sqrt{5}$$

2)  $5\sqrt{48} - 3\sqrt{2} + 7\sqrt{75} + 2\sqrt{3} =$

$$57\sqrt{3} - 3\sqrt{2}$$

3)  $-\sqrt{28} - 6\sqrt{63} + \sqrt{75} + 2\sqrt{147} =$

$$-20\sqrt{7} + 19\sqrt{3}$$

4)  $\sqrt{16x^{13}} + x^6\sqrt{x} - 3\sqrt{16y^9} + 2y^4\sqrt{y} =$

$$5x^6\sqrt{x} - 10y^4\sqrt{y}$$

5)  $\sqrt{x^5} + 4\sqrt{y^3} - 2x^2\sqrt{9x} - 7y\sqrt{4y} =$

$$-5x^2\sqrt{x} - 10y\sqrt{y}$$

6)  $\sqrt{27a^5b^6c^7} - 2a^2b^3c^3\sqrt{3ac} + ab^3c^2\sqrt{75a^3c^3} =$

$$6a^2b^3c^3\sqrt{3ac}$$