



# Multiplying Radical Expressions

Version 1

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

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

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

Direction: Simplify by multiplying the radical expressions. Show all your work in the space provided.

1)  $\sqrt{3}(2 - 4\sqrt{3})$

2)  $-\sqrt{2}(3\sqrt{2} - 4\sqrt{8})$

3)  $(1 + \sqrt{3})(1 - \sqrt{3})$

4)  $(\sqrt{2} - 3\sqrt{5})(\sqrt{2} - 3\sqrt{5})$

5)  $(-2\sqrt{2} - \sqrt{7})(-\sqrt{2} + 3\sqrt{7})$

6)  $(\sqrt{5} + \sqrt{3})(\sqrt{3} - \sqrt{5})$



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Direction: Simplify by multiplying the radical expressions. Show all your work in the space provided.

1)  $\sqrt{3}(2 - 4\sqrt{3})$

$2\sqrt{3} - 12$

2)  $-\sqrt{2}(3\sqrt{2} - 4\sqrt{8})$

10

3)  $(1 + \sqrt{3})(1 - \sqrt{3})$

-2

4)  $(\sqrt{2} - 3\sqrt{5})(\sqrt{2} - 3\sqrt{5})$

$47 - 6\sqrt{10}$

5)  $(-2\sqrt{2} - \sqrt{7})(-\sqrt{2} + 3\sqrt{7})$

$-17 - 5\sqrt{14}$

6)  $(\sqrt{5} + \sqrt{3})(\sqrt{3} - \sqrt{5})$

-2