

A N S W E R S1a1b2a2b3a3b4a4b5a5b6a6b**Simplify the followings.**

1. a. $\sqrt[4]{7-\sqrt{33}} \times \sqrt[4]{7+\sqrt{33}} = ?$

b. $\sqrt{63} - 3\sqrt{1.75} - 0.5\sqrt{343} + \sqrt{112} = ?$

2. a. $\frac{1-\sqrt{10}}{\sqrt{2}+\sqrt{5}} + \frac{7}{2\sqrt{5}+1} - (11-5\sqrt{5}) \times (2+\sqrt{5}) = ?$

b. $2\sqrt{3} + 0.25(\sqrt{21}-5) \times (\sqrt{7}+3\sqrt{3}) + \frac{2\sqrt{7}-4}{1+\sqrt{7}} = ?$

3. a. $(2-\sqrt{3})^2 - 4\sqrt{7-4\sqrt{3}} = ?$

b. $\frac{\sqrt[3]{6\sqrt{3}-10}}{\sqrt{4-2\sqrt{3}}} = ?$

4. a. $\frac{1}{\sqrt[4]{2}+\sqrt{3}} = ?$

b. $\frac{1}{\sqrt[4]{5}-\sqrt[4]{2}} = ?$

5. a. $\frac{1}{1+\sqrt{2}-\sqrt{5}} = ?$

b. $\frac{1}{\sqrt{2}+\sqrt{3}-3} = ?$

6. a. $\frac{1}{\sqrt{11-2\sqrt{30}}} = ?$

b. $\frac{5}{\sqrt{9+2\sqrt{14}}} = ?$

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RADICALS

Name _____

Class _____

Date _____

ANSWERS

1a _____

1b _____

2a _____

2b _____

3a _____

3b _____

Evaluate the followings.

1. a. $\sqrt{(18.1^3 + 6.9^3) \div (18.1^2 - 18.1 \times 6.9 + 6.9^2)} = ?$

b. $\sqrt{\frac{\sqrt{21^2 - 15^2}}{\frac{1}{6} \times \sqrt{6}}} = ?$

2. a. $\sqrt{\frac{67^2 - 58^2}{\sqrt{53^2 - 28^2}}} = ?$

b. $\sqrt{\frac{\sqrt{113^2 - 112^2}}{19^2 - 11^2}} = ?$

3. a. $(1 + \sqrt{2})^2 - (1 - \sqrt{2})^2 = ?$

b. $(1 + \sqrt{3})^2 - (1 - \sqrt{3})^2 = ?$

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