

## Simplifying Radicals Worksheet 1

**Simplify.**

1)  $\frac{\sqrt{75}}{5\sqrt{3}}$

2)  $\frac{\sqrt{16}}{4}$

3)  $\frac{\sqrt{36}}{6}$

4)  $\frac{\sqrt{64}}{8}$

5)  $\frac{\sqrt{80}}{4\sqrt{5}}$

6)  $\frac{\sqrt{30}}{\sqrt{30}}$

7)  $\frac{\sqrt{8}}{2\sqrt{2}}$

8)  $\frac{\sqrt{18}}{3\sqrt{2}}$

9)  $\frac{\sqrt{32}}{4\sqrt{2}}$

10)  $\frac{\sqrt{12}}{2\sqrt{3}}$

11)  $\frac{\sqrt{8}}{2\sqrt{2}}$

12)  $\frac{\sqrt{108}}{6\sqrt{3}}$

13)  $\frac{\sqrt{125}}{5\sqrt{5}}$

14)  $\frac{\sqrt{50}}{5\sqrt{2}}$

15)  $\frac{\sqrt{175}}{5\sqrt{7}}$

16)  $\frac{\sqrt{28}}{2\sqrt{7}}$

17)  $\frac{\sqrt{45}}{3\sqrt{5}}$

18)  $\frac{\sqrt{72}}{6\sqrt{2}}$

19)  $\frac{\sqrt{20}}{2\sqrt{5}}$

20)  $\frac{\sqrt{150}}{5\sqrt{6}}$

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

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

Teacher : \_\_\_\_\_

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

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### Simplify the Radicals

1 )  $\sqrt{289} = 17$

2 )  $11\sqrt{700} = 11\sqrt{100 \times 7} = 11 \times \sqrt{100} \times \sqrt{7} = 11 \times 10 \times \sqrt{7} = 110\sqrt{7}$

3 )  $\sqrt{320} = \sqrt{64 \times 5} = \sqrt{64} \times \sqrt{5} = 8\sqrt{5}$

4 )  $\sqrt{81} = 9$

5 )  $\sqrt{96} = \sqrt{16 \times 6} = \sqrt{16} \times \sqrt{6} = 4\sqrt{6}$

6 )  $\sqrt{144} = 12$

7 )  $2\sqrt{75} = 2\sqrt{25 \times 3} = 2 \times \sqrt{25} \times \sqrt{3} = 2 \times 5 \times \sqrt{3} = 10\sqrt{3}$

8 )  $\sqrt{72} = \sqrt{36 \times 2} = \sqrt{36} \times \sqrt{2} = 6\sqrt{2}$

9 )  $\sqrt{726} = \sqrt{121 \times 6} = \sqrt{121} \times \sqrt{6} = 11\sqrt{6}$

10 )  $16\sqrt{45} = 16\sqrt{9 \times 5} = 16 \times \sqrt{9} \times \sqrt{5} = 16 \times 3 \times \sqrt{5} = 48\sqrt{5}$

