Algebra 2 Name_____

Rationalizing Denominators

Date_____ Period____

Simplify.

1) $\dfrac{3\sqrt{15}}{\sqrt{80}}$

$\dfrac{3\sqrt{3}}{4}$

2) $\dfrac{2\sqrt{2}}{\sqrt{32}}$

$\dfrac{1}{2}$

3) $\dfrac{2\sqrt{15}}{2\sqrt{48}}$

$\dfrac{\sqrt{5}}{4}$

4) $\dfrac{3\sqrt{10}}{5\sqrt{5}}$

$\dfrac{3\sqrt{2}}{5}$

5) $\dfrac{5+3\sqrt{5}}{\sqrt{12}}$

$\dfrac{5\sqrt{3}+3\sqrt{15}}{6}$

6) $\dfrac{-1+4\sqrt{2}}{3\sqrt{17}}$

$\dfrac{-\sqrt{17}+4\sqrt{34}}{51}$

7) $\dfrac{5-5\sqrt{2}}{\sqrt{8}}$

$\dfrac{5\sqrt{2}-10}{4}$

8) $\dfrac{2}{\sqrt{2}-2\sqrt{3}}$

$\dfrac{-\sqrt{2}-2\sqrt{3}}{5}$

9) $\dfrac{2}{\sqrt{3}-5\sqrt{5}}$

$\dfrac{-\sqrt{3}-5\sqrt{5}}{61}$

10) $\dfrac{5}{-2+5\sqrt{3}}$

$\dfrac{10+25\sqrt{3}}{71}$

11) $-\dfrac{4}{3+3\sqrt{5}}$

$\dfrac{1-\sqrt{5}}{3}$

12) $\dfrac{4}{-4+\sqrt{3}}$

$\dfrac{-16-4\sqrt{3}}{13}$

13) $\dfrac{4-\sqrt{5}}{3\sqrt{2}+\sqrt{3}}$

$\dfrac{12\sqrt{2}-4\sqrt{3}-3\sqrt{10}+\sqrt{15}}{15}$

14) $\dfrac{-4+5\sqrt{5}}{3-\sqrt{5}}$

$\dfrac{13+11\sqrt{5}}{4}$

15) $\dfrac{5-4\sqrt{5}}{4+5\sqrt{3}}$

$\dfrac{-20+25\sqrt{3}+16\sqrt{5}-20\sqrt{15}}{59}$

16) $\dfrac{\sqrt{5}-4}{5\sqrt{3}+4}$

$\dfrac{5\sqrt{15}-4\sqrt{5}-20\sqrt{3}+16}{59}$