Math 2 Name_____

Unit 3.4 Practice Divide Radicals with Rationalize the Denominator

Period____

Simplify.

1) $\frac{2}{4-2\sqrt{5}}$

$-2-\sqrt{5}$

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

$\frac{\sqrt{10}+2}{4}$

3) $\frac{2}{4+5\sqrt{3}}$

$\frac{-8+10\sqrt{3}}{59}$

4) $\frac{2}{2\sqrt{3}-3}$

$\frac{4\sqrt{3}+6}{3}$

5) $\frac{3}{2+2\sqrt{2}}$

$\frac{-3+3\sqrt{2}}{2}$

6) $\frac{4}{5+3\sqrt{2}}$

$\frac{20-12\sqrt{2}}{7}$

7) $\frac{2\sqrt{3}+4\sqrt{2}}{-5+5\sqrt{3}}$

$\frac{\sqrt{3}+3+2\sqrt{2}+2\sqrt{6}}{5}$

8) $\frac{-4-2\sqrt{5}}{3\sqrt{2}-4}$

$-6\sqrt{2}-8-3\sqrt{10}-4\sqrt{5}$

9) $\frac{2-4\sqrt{3}}{3-4\sqrt{5}}$

$\frac{-6-8\sqrt{5}+12\sqrt{3}+16\sqrt{15}}{71}$

10) $\frac{5-2\sqrt{2}}{5-5\sqrt{2}}$

$\frac{-1-3\sqrt{2}}{5}$

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

$\frac{3+3\sqrt{5}-3\sqrt{3}-3\sqrt{15}}{16}$

12) $\frac{3-3\sqrt{5}}{5+4\sqrt{5}}$

$\frac{-75+27\sqrt{5}}{55}$

13) $-\dfrac{5}{4\sqrt{5n^3}-3\sqrt{n^3}}$

$\dfrac{-20\sqrt{5n}-15\sqrt{n}}{71n^2}$

14) $-\dfrac{1}{-2x-3\sqrt{x}}$

$\dfrac{2x-3\sqrt{x}}{4x^2-9x}$

15) $-\dfrac{4}{4\sqrt{2b^4}-5b^2}$

$\dfrac{-16\sqrt{2}-20}{7b^2}$

16) $\dfrac{2p}{4p^3+3\sqrt{3p^4}}$

$\dfrac{8p-6\sqrt{3}}{16p^3-27p}$

17) $\dfrac{2}{-2+4\sqrt{b^3}}$

$\dfrac{-1-2b\sqrt{b}}{1-4b^3}$

18) $\dfrac{5}{2\sqrt{2x^2}+4}$

$\dfrac{5x\sqrt{2}-10}{4x^2-8}$

19) $\dfrac{2v-2\sqrt{5u^4v^3}}{5\sqrt{2u^2v}+5\sqrt{2u^4v^3}}$

$\dfrac{\sqrt{2v}-vu\sqrt{2v}-vu^2\sqrt{10}+v^2u^3\sqrt{10}}{5u-5u^3v^2}$

20) $\dfrac{3+3\sqrt{2x^2}}{5\sqrt{3x^2}-5\sqrt{5x}}$

$\dfrac{3x\sqrt{3}+3\sqrt{5x}+3x^2\sqrt{6}+3x\sqrt{10x}}{15x^2-25x}$

21) $\dfrac{3v^2-3\sqrt{v^4}}{4\sqrt{5v^4}-3\sqrt{3v^3}}$

0

22) $\dfrac{5\sqrt{3n^4}-4n}{-2-4\sqrt{2n^2}}$

$\dfrac{-5n^2\sqrt{3}+10n^3\sqrt{6}+4n-8n^2\sqrt{2}}{2-16n^2}$

23) $\dfrac{5n+4\sqrt{2n^4}}{-4+5\sqrt{n}}$

$\dfrac{-20n-25n\sqrt{n}-16n^2\sqrt{2}-20n^2\sqrt{2n}}{16-25n}$

24) $\dfrac{2+5\sqrt{5n}}{2\sqrt{3n^2}-4\sqrt{5n^2}}$

$\dfrac{-2\sqrt{3}-4\sqrt{5}-5\sqrt{15n}-50\sqrt{n}}{34n}$