Name_____

Complex Fractions

Date_____ Period____

Simplify each expression.

1) $\dfrac{4}{\dfrac{3}{4} - \dfrac{3}{2}}$

2) $\dfrac{\dfrac{1}{4} + \dfrac{5}{4}}{4}$

3) $\dfrac{\dfrac{4}{5}}{\dfrac{2}{25} - \dfrac{5}{16}}$

4) $\dfrac{2}{\dfrac{3}{2} - \dfrac{4}{3}}$

5) $\dfrac{x}{\dfrac{3}{x} + \dfrac{1}{x}}$

6) $\dfrac{\dfrac{16}{m-1}}{\dfrac{16}{5} - \dfrac{16}{25}}$

7) $\dfrac{9}{\dfrac{9}{x} + \dfrac{2}{3x}}$

8) $\dfrac{a^2}{\dfrac{4}{5} - \dfrac{4}{a}}$

9) $\dfrac{\dfrac{x^2}{9} + \dfrac{1}{4}}{6x}$

10) $\dfrac{\dfrac{a}{8} - \dfrac{4}{a^2}}{4}$

11) $\dfrac{\dfrac{25}{12} + \dfrac{x+1}{4}}{\dfrac{1}{18} - \dfrac{x+1}{36}}$

12) $\dfrac{\dfrac{16}{m-3} - \dfrac{4}{m-4}}{\dfrac{16}{m^2} - \dfrac{m-4}{m-3}}$

13) $\dfrac{\dfrac{x-6}{6} - \dfrac{x-2}{x-6}}{\dfrac{36}{x-2} + \dfrac{4}{9}}$

14) $\dfrac{\dfrac{1}{2} - \dfrac{x+5}{4}}{\dfrac{x^2}{2} - \dfrac{5}{2}}$

Name_____

Complex Fractions

Date_____ Period____

Simplify each expression.

1) $\dfrac{4}{\dfrac{3}{4} - \dfrac{3}{2}}$

$-\dfrac{16}{3}$

2) $\dfrac{\dfrac{1}{4} + \dfrac{5}{4}}{4}$

$\dfrac{3}{8}$

3) $\dfrac{\dfrac{4}{5}}{\dfrac{2}{25} - \dfrac{5}{16}}$

$-\dfrac{320}{93}$

4) $\dfrac{2}{\dfrac{3}{2} - \dfrac{4}{3}}$

12

5) $\dfrac{x}{\dfrac{3}{x} + \dfrac{1}{x}}$

$\dfrac{x^2}{4}$

6) $\dfrac{\dfrac{16}{m-1}}{\dfrac{16}{5} - \dfrac{16}{25}}$

$\dfrac{25}{4m - 4}$

7) $\dfrac{9}{\dfrac{9}{x}+\dfrac{2}{3x}}$

$\dfrac{27x}{29}$

8) $\dfrac{a^2}{\dfrac{4}{5}-\dfrac{4}{a}}$

$\dfrac{5a^3}{4a-20}$

9) $\dfrac{\dfrac{x^2}{9}+\dfrac{1}{4}}{6x}$

$\dfrac{4x^2+9}{216x}$

10) $\dfrac{\dfrac{a}{8}-\dfrac{4}{a^2}}{4}$

$\dfrac{a^3-32}{32a^2}$

11) $\dfrac{\dfrac{25}{12}+\dfrac{x+1}{4}}{\dfrac{1}{18}-\dfrac{x+1}{36}}$

$\dfrac{84+9x}{1-x}$

12) $\dfrac{\dfrac{16}{m-3}-\dfrac{4}{m-4}}{\dfrac{16}{m^2}-\dfrac{m-4}{m-3}}$

$\dfrac{12m^3-52m^2}{192-112m-m^4+8m^3}$

13) $\dfrac{\dfrac{x-6}{6}-\dfrac{x-2}{x-6}}{\dfrac{36}{x-2}+\dfrac{4}{9}}$

$\dfrac{3x^3-60x^2+252x-288}{584x+8x^2-3792}$

14) $\dfrac{\dfrac{1}{2}-\dfrac{x+5}{4}}{\dfrac{x^2}{2}-\dfrac{5}{2}}$

$\dfrac{-3-x}{2x^2-10}$