

Trigonometry/Precalculus
Adding & Subtracting Rational Expressions
Day _____

Name _____
Date _____
Block _____

Add or subtract each pair of rational expressions. Write your answer in simplified form.

1. $\frac{4x}{2x+3} + \frac{7}{2x+3}$

6. $\frac{5x}{x-7} + \frac{2x}{4x-28}$

2. $\frac{y}{y^2-9} + \frac{5}{y^2-9}$

7. $\frac{2x}{x^2+2x+1} + \frac{x^2+1}{x^2-1}$

3. $\frac{7x+4}{x^2+3x+2} - \frac{3x-2}{x^2+3x+2}$

8. $\frac{x}{x^2-1} - \frac{2}{x^2-2x+1}$

4. $\frac{3}{y+5} + \frac{y}{y^2+7y+10}$

9. $\frac{x}{x^2-4} - \frac{2}{4-x^2} + 2$

5. $\frac{3x}{x-6} + \frac{6x}{4x-24}$

10.
$$\frac{m-3n}{6m^3n} - \frac{m+3n}{6m^3n}$$

11.
$$\frac{6}{x-1} - \frac{5x}{4}$$

12.
$$\frac{5}{n+5} + \frac{4n}{2n+6}$$

13.
$$6 - \frac{x+5}{(7x-5)(x+4)}$$

14.
$$\frac{3}{4v^2+4v} - \frac{7}{2}$$

15.
$$\frac{1}{(x+h)^2} - \frac{1}{x}$$

Simplify the following complex fractions. Show your process.

16.
$$\frac{\frac{25}{4}}{\frac{1}{5} - \frac{4}{25}}$$

17.
$$\frac{8}{\frac{4}{9} + \frac{16}{9}}$$

18.
$$\frac{\frac{a}{25} - \frac{a}{5}}{a}$$

19.
$$\frac{\frac{5}{4}}{\frac{5}{m} - \frac{4}{m}}$$

20.
$$\frac{\frac{x^2}{9} + \frac{1}{4}}{6x}$$

21.
$$\frac{\frac{1}{x+h} - \frac{1}{x}}{h}$$

