

Name: Key

Unit 8: Rational Functions

Date: _____ Bell: _____

Homework 2: Adding & Subtracting
Rational Expressions**** This is a 2-page document! ******Directions:** Find the sum/difference. Give your answer in simplest form.

1. $\frac{9w^3}{2w^5} + \frac{3w^3}{2w^5}$

$$\frac{6}{w^2}$$

2. $\frac{8k+9}{18} - \frac{2k+1}{18}$

$$\frac{3k+4}{9}$$

3. $\frac{x^2+5x}{x+7} - \frac{14}{x+7}$

$$x+2$$

4. $\frac{3y^2-19y}{y^2-25} + \frac{y^2-y}{y^2-25}$

$$\frac{4y}{y+5}$$

5. $\frac{8m^2}{10m^3+60m^2} - \frac{6m^2-12m}{10m^3+60m^2}$

$$\frac{1}{5m}$$

6. $\frac{v^2-4v}{5v^2+9v-2} - \frac{2v+16}{5v^2+9v-2}$

$$\frac{v-8}{5v-1}$$

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

$$\frac{17x}{12}$$

8. $\frac{a}{12b} - \frac{b}{8a}$

$$\frac{2a^2-3b^2}{24ab}$$

9. $\frac{7}{n+9} + \frac{12}{4n+36}$

$$\frac{10}{n+9}$$

10. $\frac{p^2-9p}{p^2-4p-45} - \frac{2}{p+5}$

$$\frac{p-2}{p+5}$$

11. $\frac{k+5}{k+1} + \frac{8}{k^2-1}$

$$\frac{k+3}{k-1}$$

12. $\frac{22w+11}{8w^2-6w} - \frac{3}{2w}$

$$\frac{5(w+2)}{w(4w-3)}$$

12. $\frac{x}{2x-5} - \frac{4x+15}{4x^2-25}$

$$\frac{x+3}{2x+5}$$

14. $\frac{8a-18}{3a^2+14a+8} + \frac{7}{3a+2}$

$$\frac{5}{a+4}$$

15. $4 - \frac{5}{4m+8}$

$$\frac{16m+27}{4(m+2)}$$

16. $\frac{3c}{c-4} - \frac{2}{5}$

$$\frac{13c+8}{5(c-4)}$$

17. $\frac{6}{v+4} + \frac{2}{v-6}$

$$\frac{4(2v-7)}{(v-6)(v+4)}$$

18. $\frac{r}{r^2-4} + \frac{1}{r^2-6r+8}$

$$\frac{r-1}{(r-4)(r+2)}$$