AA5-2 Name _____

Rational Expressions – multiplying and adding with a common denominator

Check for Understanding:

Which of following cannot be multiplied?

$\frac{5}{7} \cdot \frac{3}{7}$ $\frac{1}{2x} \cdot \frac{x+3}{2x}$ $\frac{7}{x-2} \cdot \frac{x-2}{7}$ $\frac{x^2-9}{4x+3} \cdot \frac{6}{4x+3}$ $\frac{14x-7}{3x-5x^2} \cdot \frac{1}{8}$

Practice C-Level:

1. $\frac{3x+12}{x^2} \cdot \frac{x}{x+4}$

2. $\frac{8x}{x^2-16} \cdot \frac{x+4}{4}$

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

4. $\frac{(5x-2)(3x+1)}{(2x-3)^2} \cdot \frac{(x-4)(2x-3)}{(5x-2)(x-4)}$

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

6. $\frac{(x-2)^3}{3x} \cdot \frac{x+5}{(x+2)(x-2)}$

Type equation here.

7. $\frac{x^2-1}{5} \cdot \frac{2}{x^2-x}$

8. $\frac{3x+6}{5x} \cdot \frac{x+4}{x^2+2x}$

9. $\frac{15-5x}{x^2-x-6} \cdot \frac{x^2+6x+8}{5x}$

10. $\frac{5x}{x^2-2x-3} - \frac{15}{x^2-2x-3}$

11. $\frac{3x+9}{8x^2-50} - \frac{x+4}{8x^2-50}$

12. $\frac{x^2+5x-2}{3x^2+2x-8} + \frac{2x^2-3x-6}{3x^2+2x-8}$

13. $\frac{2x^2+x}{x^2+2x-15} + \frac{3x-30}{x^2+2x-15}$

14. $\frac{x+3}{3x^2-27} + \frac{x^2-9}{3x^2-27}$

B-Level:

15. $\frac{12x-18}{x^2-2x-15} \cdot \frac{x^2-x-12}{3x^2-9x-12}$

16. $\frac{5x^2+34x-7}{10x} \cdot \frac{5x}{x^2+4x-21}$

17. $\frac{2x}{2x^2+x-21} + \frac{7}{2x^2+x-21}$

Looking ahead:

$\frac{x}{3x+1} + \frac{2x^2-2}{(x-5)(3x+1)}$