

**Rational Functions 2a – Add & Subtract w/Like Denominators  
Homework #12**

Simplify and state the excluded value(s).

$$1) \frac{6m-27}{8m-36} \cdot \frac{12m+36}{3m^2+6m-9}$$

$$2) \frac{x^2-13x+42}{7x^2-5x-18} \div \frac{2x}{14x^2+18x}$$

$$3) \frac{9x^4}{7} \div \frac{18x^3}{21x}$$

$$4) \frac{2-v}{8v} + \frac{6-3v}{8v}$$

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

$$6) \frac{k-7}{k^2-9k+14} + \frac{5}{k^2-9k+14}$$

$$7) \frac{7a^2+12a}{2a^2-12a} - \frac{a^2+2a}{2a^2-12a}$$

$$8) \frac{x^2+20x+7}{9x^2-49} - \frac{x^2+5x+42}{9x^2-49}$$

$$9) \frac{-2x^2+8x-12}{2x^3+15x^2+7x} + \frac{4x^2-15x+8}{2x^3+15x^2+7x}$$

$$10) \frac{x-4}{x^2-x-42} + \frac{7x+5}{x^2-x-42}$$

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