Homework: pg 128 #1ab, 2cd, 3, 7, 9, 10

**Adding and Subtracting Rational Expressions**

Recall:

Evaluate the following:

a) $\frac{2}{5}+\frac{4}{15}$ b) $\frac{1}{3}-\frac{2}{7}$

Alternatively, the expressions can be evaluated using a cross method (not cross multiplication) for addition/subtraction as follows:

a) $\frac{2}{5}+\frac{4}{15}$ b) $\frac{1}{3}-\frac{2}{7}$

Examples

Expand and simplify each rational expression below then state all restrictions:

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

c) $\frac{5x-y}{3x-y}-\frac{4x+y}{3x-y}$ d) $\frac{y-5}{6}+\frac{2y-3}{4}$

e) $\frac{3m+4}{mn}-\frac{1}{m}-2$ f) $\frac{3x+9}{x^{2}-9}+\frac{5x}{x-3}$

g) $\frac{3x+2}{x^{2}-3x-10}-\frac{x+8}{x^{2}-x-20}$ h) $\frac{3x}{x+3}+\frac{1}{x+2}÷\frac{x+3}{x^{2}-4}$