

#11-28

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

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

$$= \frac{x-2}{x-5}$$

$$b) \frac{9-3x}{(x+3)(x-3)} + \frac{2x(x-3)}{x+3(x-3)} = \frac{9-3x+2x^2-6x}{(x+3)(x-3)} = \frac{2x^2-9x+9}{(x+3)(x-3)}$$

$$= \frac{(2x-3)(x-3)}{(x+3)(x-3)} = \frac{2x-3}{x+3}$$