Arellano University - Malabon
School of Computer Science
CS 314

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Day & Time : FRIDAY, 9:00 – 12:00
Date : Nov. 4, 2022

I. Perform the indicated operations. In MS Word, show your complete solution below the expression and submit to LMS on Saturday, Nov. 5 until 8:00pm.

1. Subtract $\frac{2x-9}{x^2-8x+16}$ from $\frac{5x+6}{3x^2-11x-4}$

$= \frac{2x-9(3x+1)-5x-6(x-4)}{(3x+1)(x-4)^2}$

$= \frac{6x^2-25x-9-5x^2+14x+24}{3x+1(x-4)^2}$

LCD: $(3x+1)(x-4)^2$

$= \frac{x^2-11x+15}{3x+1(x-4)^2}$

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

$= \frac{3x-4+2x-6}{x^2+5x+6}$

$= \frac{5x-10}{x^2+5x+6}$

3. $\frac{3x}{3x+7} - \frac{2}{x-2} + \frac{19x+14}{3x^2+x-14} = \frac{3x^2+7}{3x^2+x-14}$

$\frac{3x}{3x+7} / (x-2)(3x+7)$

$3x(x-2) = 3x^2-6x$

LCD: $(x-2)(3x+7)$

$\frac{2}{x-2} / (x-2)(3x+7)$

$-2(3x+7)$

$-6x-14$

$\frac{3x^2-6x-6x-14+19x+14}{(x-2)(3x^2-6x)}$

$= \frac{3x^2+7x}{(x-2)(3x^2-6x)}$