KEY

Pre-Calculus

Practice ----- Partial Fractions (with non-repeated linear factors)

1) $\dfrac{x-3}{x^2+9x+20}$

$\dfrac{-7}{x+4} + \dfrac{8}{x+5}$

2) $\dfrac{4}{3x^2+x-14}$

$\dfrac{\frac{-12}{13}}{3x+7} + \dfrac{\frac{4}{13}}{x-2}$

3) $\dfrac{x+5}{x^2-5x+4}$

$\dfrac{-2}{x-1} + \dfrac{3}{x-4}$

4) $\dfrac{-5x+4}{x^2-x}$

$\dfrac{-4}{x} + \dfrac{-1}{x-1}$

5) $\dfrac{3x+10}{x^2+9x+20}$

$\dfrac{5}{x+5} + \dfrac{-2}{x+4}$

6) $\dfrac{2x-2}{(x+5)(x+2)(x-3)}$

$\dfrac{-\frac{1}{2}}{x+5} + \dfrac{\frac{2}{5}}{x+2} + \dfrac{\frac{1}{10}}{x-3}$

7) $\dfrac{-6x^2+3x+5}{x^3-x}$

$\dfrac{-5}{x} + \dfrac{-2}{x+1} + \dfrac{1}{x-1}$

8) $\dfrac{x^2+1}{x^2-3x+2}$ hint: divide first!!!

$1 + \dfrac{5}{x-2} + \dfrac{-2}{x-1}$