Name_____

Assignment: Partial Fraction

Date_____

Find the partial fraction decomposition of each.

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

2) $\dfrac{14x + 24}{x(x + 4)}$

3) $\dfrac{x^2 - 11 + x}{x^2 + x - 6}$

4) $\dfrac{-7x^2 + 17 + 6x}{x^3 - 5x - 3x^2 + 15}$

5) $\dfrac{2x^2 - 12x + 8}{x^2 - 3x + 2}$

6) $\dfrac{-2x^2 + 11x - 8}{x^2 - 6x + 8}$

7) $\dfrac{7x + 22}{x^2 + 6x + 9}$

8) $\dfrac{2x + 12}{x^2 + 6x + 9}$

9) $\dfrac{2x^4 - 12x^2 + 19}{x^4 - 7x^2 + 10}$

10) $\dfrac{-x^4 - 12x^2 - 21}{x^4 + 4x^2 + 4}$

Answers to Assignment: Partial Fraction

1) $\dfrac{1}{x} - \dfrac{3}{x+5}$

2) $\dfrac{6}{x} + \dfrac{8}{x+4}$

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

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

5) $2 - \dfrac{8}{x-2} + \dfrac{2}{x-1}$

6) $-2 - \dfrac{3}{x-2} + \dfrac{2}{x-4}$

7) $\dfrac{7}{x+3} + \dfrac{1}{(x+3)^2}$

8) $\dfrac{2}{x+3} + \dfrac{6}{(x+3)^2}$

9) $2 + \dfrac{3}{x^2-5} - \dfrac{1}{x^2-2}$

10) $-1 - \dfrac{8}{x^2+2} - \dfrac{1}{(x^2+2)^2}$