 Name_____

Partial Fraction Decomposition

Date_____ Period____

Find the partial fraction decomposition of each.

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

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

3) $\frac{-2x^2+4x+14}{x^2-6x+5}$

4) $\frac{2x^2-9x-10}{x^2-5x}$

5) $\frac{-7x-15}{x^2+6x+9}$

6) $\frac{-2x^2+19x-13}{x^3-7x^2+11x-5}$

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

8) $\frac{20x+9}{25x^2+20x+4}$

9) $\frac{-4x^4-26x^2-2x^3-8x-44}{(x+1)(x^2+3)^2}$

10) $\frac{-2x^3+36x^2-199x+375}{x(x-5)^3}$

11) $\frac{15x^2-11x-5}{x(x+1)(2x-5)}$

12) $\frac{2x^4-8x^2-10+3x^3-9x}{x(x^2+1)(x^2-5)}$

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Partial Fraction Decomposition

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Find the partial fraction decomposition of each.

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

$-\frac{4}{x}-\frac{1}{x-1}$

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

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

3) $\frac{-2x^2+4x+14}{x^2-6x+5}$

$-2-\frac{4}{x-5}-\frac{4}{x-1}$

4) $\frac{2x^2-9x-10}{x^2-5x}$

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

5) $\frac{-7x-15}{x^2+6x+9}$

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

6) $\frac{-2x^2+19x-13}{x^3-7x^2+11x-5}$

$\frac{2}{x-5}-\frac{4}{x-1}-\frac{1}{(x-1)^2}$

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

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

8) $\frac{20x+9}{25x^2+20x+4}$

$\frac{4}{5x+2}+\frac{1}{(5x+2)^2}$

9) $\frac{-4x^4-26x^2-2x^3-8x-44}{(x+1)(x^2+3)^2}$

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

10) $\frac{-2x^3+36x^2-199x+375}{x(x-5)^3}$

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

11) $\frac{15x^2-11x-5}{x(x+1)(2x-5)}$

$\frac{1}{x}+\frac{3}{x+1}+\frac{7}{2x-5}$

12) $\frac{2x^4-8x^2-10+3x^3-9x}{x(x^2+1)(x^2-5)}$

$\frac{2}{x}+\frac{2}{x^2+1}+\frac{1}{x^2-5}$

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