

## Assignment: Partial Fraction

Date \_\_\_\_\_

**Find the partial fraction decomposition of each.**

1)  $\frac{-25x + 23}{5x^2 + 2x - 3}$

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

3)  $\frac{x^2 - 12x + 11}{x^2 - 2x - 15}$

4)  $\frac{-x^2 - 14x + 2}{x^2 + 2x - 8}$

$$5) \frac{-30 - 4x}{x^3 + 8x^2 + 15x}$$

$$6) \frac{2x^3 + 9x^2 - 8x - 8}{x^3 + 3x^2 - 4x}$$

$$7) \frac{x^3 - 70 - 29x}{x^3 + 4x^2 - 25x - 100}$$

$$8) \frac{-4x^2 + 36x - 66}{x^3 - 2x^2 - 9x + 18}$$

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

$$10) \frac{6x^3 + 15x^2 - 58x + 16}{3x^3 + 11x^2 - 4x}$$

## Answers to Assignment: Partial Fraction

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

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

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

$$4) -1 - \frac{7}{x+4} - \frac{5}{x-2}$$

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

$$6) 2 + \frac{2}{x} + \frac{2}{x+4} - \frac{1}{x-1}$$

$$7) 1 + \frac{2}{x+4} - \frac{5}{x+5} - \frac{1}{x-5}$$

$$8) -\frac{7}{x+3} + \frac{1}{x-3} + \frac{2}{x-2}$$

$$9) \frac{1}{x-2} + \frac{1}{x-1}$$

$$10) 2 - \frac{4}{x} - \frac{1}{3x-1} + \frac{2}{x+4}$$