

## Assignment

Date \_\_\_\_\_ Period \_\_\_\_\_

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

1)  $\frac{-5x + 31}{(x - 5)(x - 2)}$

2)  $\frac{12x + 8}{x(x + 2)}$

3)  $\frac{4x + 15}{(x + 2)(x - 5)}$

4)  $\frac{x - 8}{(x - 5)(x - 4)}$

5)  $\frac{4x^2 + 29x + 35}{x(x + 1)(3x + 5)}$

6)  $\frac{x^2 - 47x - 40}{x(3x + 4)(x + 5)}$

7)  $\frac{x^2 + 32x + 39}{(x + 5)(x + 2)(3x - 1)}$

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

## Answers to Assignment (ID: 1)

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

$$2) \frac{4}{x} + \frac{8}{x+2}$$

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

$$4) -\frac{3}{x-5} + \frac{4}{x-4}$$

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

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

$$7) -\frac{2}{x+5} + \frac{1}{x+2} + \frac{4}{3x-1}$$

$$8) -\frac{2}{x+2} + \frac{6}{x-2} - \frac{1}{x-1}$$