

MAT 171 - CLASS NOTES - Section 8.3: Partial Fractions

- 1) Write the form of the partial fraction decomposition of the rational expression. It is not necessary to solve for the constants.

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

b) $\frac{3x + 16}{(x + 1)(x - 2)^2}$

c) $\frac{5x^2 - 9x + 19}{(x - 4)(x^2 + 5)}$

Write the partial fraction decomposition of each rational expression.

2) $\frac{9x + 21}{x^2 + 2x - 15}$

$$3) \frac{4x^2 - 5x - 15}{x(x+1)(x-5)}$$

$$4) \frac{3x^2 + 49}{x(x+7)^2}$$