

Math 102 — Partial fraction decomposition

Problem. Perform partial fraction decomposition on each of the rational functions and then find its indefinite integral.

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

b. $\frac{x+1}{6x+x^2}$ *Hint: factor the denominator first*

c. $\frac{1}{(x-1)^2(x-2)}$

d. $\frac{10x+2}{(x-5)(x^2+1)}$