

Integrations using Partial Fractions

Partial fractions

Ex  $\frac{5x-7}{x^2-3x+2} =$

\*\*if the bottom is a linear term or a linear term to a power then a constant goes on top\*\*

\*If the bottom is a non-factorable polynomial then the top is one degree less than the bottom\*\*

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

$$\int \frac{t^4 + 9}{t^4 + 9t^2} dt$$

$$(t^3 - 3t + 2) \frac{dx}{dt} = 1 \quad (t > 2) \quad x(3) = 0$$