

## VD 7.3.2

Write the following rational expressions into its partial fraction decomposition

1. $\frac{3}{x^2+x-2}$	$\frac{1}{x-1} - \frac{1}{x+2}$
2. $\frac{x^2+12x+12}{x^3-4x}$	$-\frac{3}{x} - \frac{1}{x+2} + \frac{5}{x-2}$
3. $\frac{3x}{(x-3)^2}$	$\frac{3}{x-3} + \frac{9}{(x-3)^2}$
4. $\frac{x+2}{x^2+4x+3}$	$\frac{\frac{1}{2}}{x+3} + \frac{\frac{1}{2}}{x+1}$
5. $\frac{3x^2-7x-2}{x^3+x}$	$\frac{5x-7}{x^2+1} - \frac{2}{x}$
6. $\frac{2x^3-x^2+x+5}{x^2+3x+2}$	$2x-7 + \frac{1}{x+1} + \frac{17}{x+2}$
7. $\frac{x-1}{x^3+x^2}$	$\frac{2}{x} + \frac{-1}{x^2} + \frac{-2}{x+1}$