

## Supplementary problems on partial fractions

1. Find the partial fraction decomposition of

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

2. Find the partial fraction decomposition of

$$\frac{9x+25}{(x+3)^2}.$$

3. Find the partial fraction decomposition of

$$\frac{x^3+10x^2+3x+36}{(x-1)(x^2+4)^2}.$$