Use the method of partial fractions to rewrite the following

1. $\dfrac{2x-6}{x^2+x-6} =$

2. $\dfrac{16-x}{x^2+3x-10} =$

3. $\dfrac{3}{x^2-9} =$

4. $\dfrac{x-12}{x^2-4x} =$

5. $\dfrac{2x-6}{x^2-2x} =$

6. $\dfrac{2}{x^3-x} =$

Write the partial fraction decomposition

7. $\dfrac{x^2 + x - 1}{x^2 - x}$

8. $\dfrac{2x^3 - x^2 + 1}{x^2 - 4}$

Use the method of partial fractions to rewrite the following

9. $\dfrac{5x^2 - 21x + 13}{(x+2)(x-3)^2} =$

10. $\dfrac{3x+4}{(x+1)^2} =$

11. $\dfrac{3x-1}{x^2(x+2)} =$

Use the method of partial fractions to rewrite the following

12. $\dfrac{3x+4}{x\left(x^2+1\right)} =$

3. $\dfrac{6x-1}{\left(x-1\right)\left(x^2+2x+2\right)} =$

14. $\dfrac{-x^3-6x^2-5x+87}{x^4-16}$

Use the method of partial fractions to rewrite the following

12. $\dfrac{3x^2+4}{\left(x^2+1\right)^2} =$

13. $\dfrac{3x-1}{x^2\left(x^2+2\right)} =$

14. $\dfrac{-x^3-6x^2-5x+87}{x^4-3x^2-4}$