

## Assignment :Partical Fraction (Advance)

Date \_\_\_\_\_

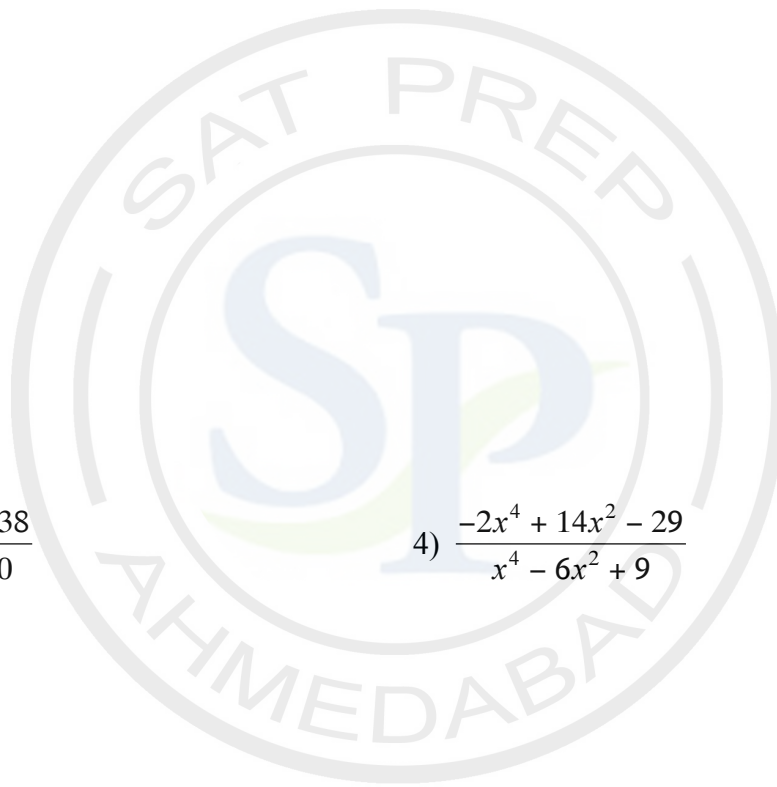
**Find the partial fraction decomposition of each.**

1)  $\frac{6x^2 + 18}{x^4 + 8x^2 + 16}$

2)  $\frac{-2x^2 - 10 - x}{x^3 + 5x}$

3)  $\frac{-x^3 + 2x + 10x^2 - 38}{x^3 - 5x - 4x^2 + 20}$

4)  $\frac{-2x^4 + 14x^2 - 29}{x^4 - 6x^2 + 9}$



$$5) \frac{6x^2 + 18 - 5x}{x^3 + 3x}$$

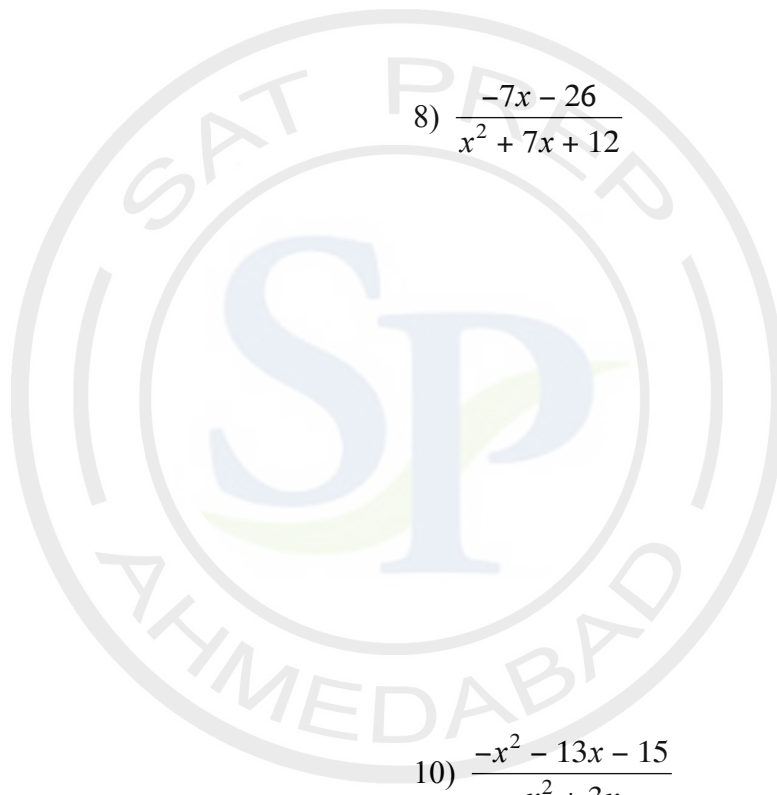
$$6) \frac{2x^2 - x - 8}{x^2 - 4x}$$

$$7) \frac{5x - 9}{x^2 - 3x}$$

$$8) \frac{-7x - 26}{x^2 + 7x + 12}$$

$$9) \frac{-2x + 5}{x^2 - 4x + 4}$$

$$10) \frac{-x^2 - 13x - 15}{x^2 + 3x}$$



## Assignment :Partical Fraction (Advance)

Find the partial fraction decomposition of each.

$$1) \frac{6x^2 + 18}{x^4 + 8x^2 + 16}$$

$$\frac{6}{x^2 + 4} - \frac{6}{(x^2 + 4)^2}$$

$$2) \frac{-2x^2 - 10 - x}{x^3 + 5x}$$

$$-\frac{2}{x} - \frac{1}{x^2 + 5}$$

$$3) \frac{-x^3 + 2x + 10x^2 - 38}{x^3 - 5x - 4x^2 + 20}$$

$$-1 + \frac{6}{x - 4} - \frac{3}{x^2 - 5}$$

$$4) \frac{-2x^4 + 14x^2 - 29}{x^4 - 6x^2 + 9}$$

$$-2 + \frac{2}{x^2 - 3} - \frac{5}{(x^2 - 3)^2}$$

$$5) \frac{6x^2 + 18 - 5x}{x^3 + 3x}$$

$$\frac{6}{x} - \frac{5}{x^2 + 3}$$

$$6) \frac{2x^2 - x - 8}{x^2 - 4x}$$

$$2 + \frac{2}{x} + \frac{5}{x - 4}$$

$$7) \frac{5x - 9}{x^2 - 3x}$$

$$\frac{3}{x} + \frac{2}{x - 3}$$

$$8) \frac{-7x - 26}{x^2 + 7x + 12}$$

$$-\frac{2}{x + 4} - \frac{5}{x + 3}$$

$$9) \frac{-2x + 5}{x^2 - 4x + 4}$$

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

$$10) \frac{-x^2 - 13x - 15}{x^2 + 3x}$$

$$-1 - \frac{5}{x} - \frac{5}{x + 3}$$