Name: \_\_\_\_\_ Date: \_\_\_\_ Score: \_\_\_\_

Direction: Decompose the given rational expression into partial fractions. Show all your work in the space provided.

$$1) \quad \frac{4x+1}{x^2-x} =$$

2) 
$$\frac{x+1}{x^2-x-6} =$$

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

$$4) \quad \frac{x+5}{x^3-5x} =$$

Name: \_\_\_\_\_ Date: \_\_\_\_ Score: \_\_\_\_

Direction: Decompose the given rational expression into partial fractions. Show all your work in the space provided.

1) 
$$\frac{4x+1}{x^2-x} = \frac{5}{x-1} - \frac{1}{x}$$

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

3) 
$$\frac{x^2}{(x-2)^3} = \frac{1}{x-2} + \frac{4}{(x-2)^2} + \frac{4}{(x-2)^3}$$

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