

$$(a) \frac{x^4 + 2}{x^5 + 7x^3} = \frac{x^4 + 2}{x^3(x^2 + 7)} = \frac{A}{x} + \frac{B}{x^2} + \frac{C}{x^3} + \frac{Dx + E}{x^2 + 7}$$

$$(b) \frac{3}{(x^2 - 1)^2} = \frac{3}{[(x + 1)(x - 1)]^2} = \frac{3}{(x + 1)^2(x - 1)^2}$$
$$= \frac{A}{x + 1} + \frac{B}{(x + 1)^2} + \frac{C}{x - 1} + \frac{D}{(x - 1)^2}$$