

2.67  
6

(i)

$$\int \frac{2(x^2+1)^2}{x^3} dx = \int \frac{2x^4+4x^2+2}{x^3} dx = \int \left( 2x + \frac{4}{x} + \frac{2}{x^3} \right) dx = x^2 + 4 \ln|x| - \frac{1}{x^2} + C$$