Find each of the folowing. Don't forget the $+C$

1. $\displaystyle \int 15x^4 + \frac{9}{x^2} + 2e^{5x} \ dx = \int 15x^4 + 9x^{-2} + 2e^{5x} \ dx =$

$\displaystyle \frac{15x^5}{5} + \frac{9x^{-1}}{-1} + \frac{2e^{5x}}{5} + C = 3x^5 - 9x^{-1} + \frac{2e^{5x}}{5} + C$

2. $\displaystyle \int x^2 \left(6x^3 + 2x^{-3} \right) \ dx = \int 6x^5 + 2x^{-1} dx =$

$\displaystyle \frac{6x^6}{6} + 2\ln(x) + C = x^6 + 2\ln(x) + C$

3. $\displaystyle \int \sqrt[5]{x^2} + \frac{3}{x} + 7 \ dx = \int x^{2/5} + 3x^{-1} + 7 \ dx =$

$\displaystyle \frac{x^{7/5}}{7/5} + 3\ln(x) + 7x + C$

$\displaystyle \frac{5}{7}x^{7/5} + 3\ln(x) + 7x + C$