1) Calcule as integrais abaixo

a. $\int (x^{\frac{3}{2}} + 2x + 1)\, dx$

b. $\int \sqrt[3]{x^2}\, dx$

c. $\int \frac{1}{x^3}\, dx$

d. $\int \frac{x^2+x+1}{\sqrt{x}}\, dx$

a) $\frac{x^{1+\frac{3}{2}}}{1+\frac{3}{2}} + x^2 + x + k \rightarrow \frac{2x^{\frac{5}{2}}}{5} + x^2 + x + k$

b) $\frac{x^{1+\frac{2}{3}}}{1+\frac{2}{3}} + k \rightarrow \frac{3x^{\frac{5}{3}}}{5} + k$

c) $\frac{x^{-2}}{-2} + k \rightarrow -\frac{1}{2x^2} + k$

d) $\frac{x^2}{\sqrt{x}} + \frac{x}{\sqrt{x}} + \frac{1}{\sqrt{x}} = \frac{x^2}{x^{0,5}} + \frac{x}{x^{0,5}} + \frac{1}{x^{0,5}} = x^2.x^{-0,5} + x.\, x^{-0,5} + 1.\, x^{-0,5}$

$$x^{1,5} + x^{0,5} + x^{-0,5}$$

$$\int x^{1,5} + x^{0,5} + x^{-0,5}\, dx = \frac{x^{2,5}}{2,5} + \frac{x^{1,5}}{1,5} + \frac{x^{0,5}}{0,5} + k$$