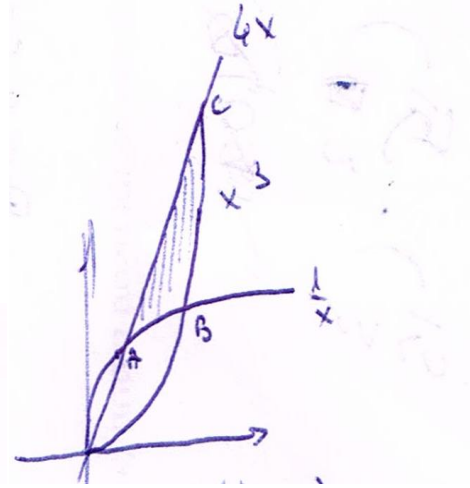


4.15
8

$$\begin{aligned} A & \left(\frac{1}{2}, 2 \right) \\ B & (1, 1) \\ C & (2, 8) \end{aligned}$$



$$\int_{\frac{1}{2}}^1 \left(4x - \frac{1}{x} \right) dx + \int_1^2 (4x - x^3) dx = 2x - \ln|x| \Big|_{\frac{1}{2}}^1 + 2x^2 - \frac{x^4}{4} \Big|_1^2 =$$
$$2 - \frac{1}{2} + \ln \frac{1}{2} + 8 - 4 - 2 + \frac{1}{4} = 3\frac{3}{4} - \ln 2$$