Q1) $\displaystyle\int_{0}^{\pi/3} \sec^2 x \, \tan^2 x \, dx$

Final Ans.

Q2) $\displaystyle\int_{-2}^{2} x^3 \cos\left(\frac{\pi x}{2}\right) dx$

Final Ans.

Q3) Set up -**Don't evaluate** - an integral for the volume of the solid obtained by rotating the region enclosed by $y = \sqrt{x}$, $y = x - 2$ and the *x-axis* about $x = -1$

Final Ans.