

Family name:

Q1) Evaluate the following integrals

i.
$$\int_{-\frac{\pi}{2}}^0 \sqrt{\cos(x) - \cos^3(x)} dx$$



ii.
$$\int \sin^2(3x) \cdot \sin(5x) dx$$



$$\text{iii. } \int x \cdot 2^{3x} \cdot 3^{2-x} dx$$

$$\text{iv. } \int x^2 \csc^2(x) \cdot \cot(x) dx$$