

$$\text{cii) } \int \frac{8}{3x+10} dx$$

$$\frac{8x}{\frac{3x^2}{2} + 10x} + C$$

$$\frac{8x}{\frac{3}{2}x^2 + 10x} + C$$

$$d) \int_{\frac{\pi}{5}}^{\frac{\pi}{2}} \frac{7}{9} \sin x \cos x$$

$$u = \sin x$$

$$\frac{dw}{dx} = \cos x$$

$$\frac{dw}{\cos x} = dx$$

$$\int_{\frac{\pi}{5}}^{\frac{\pi}{2}} \frac{7}{9} u \cos x du$$

$$\int_{\frac{\pi}{5}}^{\frac{\pi}{2}} \frac{7}{9} u (1-u^2) du$$