

3.5 It bunnarun $F(x) = \int_0^x f(t) dt$.

$$\textcircled{1} \int_0^1 x e^{x^2} dx = ;$$

NYΣH

$$\int_0^1 \cancel{x} e^u \frac{du}{\cancel{2x}}$$

$$\frac{1}{2} [e^x]_0^1 =$$

$$\frac{1}{2}(e-1)$$

$$u = x^2$$

$$u_1 = 0$$

$$u_2 = 1.$$

$$du = 2x dx$$

$$\frac{du}{2x} = dx$$

$$\textcircled{2} \int_0^{\pi/2} x \cos x dx = ;$$

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$$\int_0^{\pi/2} x (\sin x)' dx$$

$$[x \sin x]_0^{\pi/2} - \int (x)' \cos x dx.$$

$$\frac{\pi}{2} \cdot 1 - [\sin x]_0^{\pi/2}$$

$$\frac{\pi}{2} - (1 - 0) = \frac{\pi}{2} - 1.$$