

Name: Nwanyi Sylvester Chikwura, U

Department: mechatronics

matric No: 14/ENG-05/042

Course Code: maths 104

Find the integral of the following

1) $e^x \sin x dx$

Solution

$$-\infty < x < \infty$$

2) ~~$x^2 \sin x dx$~~ $2x^2 \sin x dx$

Solution

$$2x \cdot 2 \ln x dx$$

$$= 4 \ln x dx$$

$$= 4 \ln x^{1+1} dx$$

$$= 4 \ln x^2 dx$$

$$= 4 \ln x^2 dx$$

3) $x^2 \sin x dx$

Solution

$$-\infty < x < \infty$$

4) $x \cos x dx$

Solution

$$-\infty < x < \infty$$