

KWAME NKRUMAH UNIVERSITY OF SCIENCE AND TECHNOLOGY,  
KUMASI  
COLLEGE OF SCIENCE  
FACULTY OF PHYSICAL AND COMPUTATIONAL SCIENCES  
BSc. COMPUTER SCIENCE 1  
MATH 162: PURE MATHEMATICS II  
**ASSIGNMENT 1**

**Instructions To Assignment**

- \* The assignment should be done in the groups with reference to last semester's assignment groups.
- \* The solutions to the assignment should be **WRITTEN** appropriately and be submitted as soon as possible.
- \* The date of submission of assignment is **5th July, 2021, 1.30pm** and should be treated accordingly.

***Answer The following Questions***

1. Evaluate the following integrals;

a.  $\int \frac{x-1}{(x+1)(x^2+1)} dx$

b.  $\int \frac{7x-8}{4x^2+3x-1} dx$

c.  $\int x^3 \sin 2x dx$

2. What is the points of intersection of the circle  $x^2 + y^2 - 2x - 6y + 5 = 0$  of  $y - 2x = 3$  ?. Find the length of the points of intersection.
3. Find the equation of the circle of the given points  $A(2, 2)$  and  $B(-2, -1)$

**WISHING YOU ALL BEST OF LUCK IN YOUR MID-SEMESTER  
EXAMS !!!!!**