## $\begin{aligned} \textbf{KFUPM} - \textbf{Department of Mathematics and Statistics} - \textbf{Term 131} \\ \textbf{MATH 102} \\ \textbf{QUIZ \# 4 Code 1} & (\textbf{Duration} = 20 \text{ minutes}) \end{aligned}$

NAME:	ID:	_ Section:
E		
Exercise 1 (4 points)		
Evaluate $\int \frac{\cos x dx}{\sqrt{ \sin^2(x) - 4 }}.$		
$\sqrt{ \sin^2(x)-4 }$		

Exercise 2 (3 points)
Write  $\frac{x+1}{x^3 - x^2 + x - 1}$  in partial fractions.

Exercise 3 (3 points)

Determine whether the improper integral  $\int_{2}^{\infty} \frac{x+1}{x^3-x^2+x-1} dx$  is convergent or divergent.

## KFUPM – Department of Mathematics and Statistics – Term 131 MATH 102 QUIZ # 4 Code 2 (Duration = 20 minutes)

NAME:	ID:	Section:
Exercise 1 (4 points)		
Evaluate $\int \frac{\sin x dx}{\sqrt{ \cos^2(x) - 4 }}.$		

Exercise 2 (3 points)

Write 
$$\frac{x+1}{x^3-x^2+x-1}$$
 in partial fractions.

Exercise 3 (3points)

Determine whether the improper integral  $\int_4^\infty \frac{x+1}{x^3 - x^2 + x - 1} dx$  is convergent or divergent