Name _____ Student No._____ G___/____ Date: _____Score: _____
Nickname: _____ Quiz No.: _____

Graphing Polynomial

A. Identify the properties of the given polynomial equation then sketch its graph.

1) $f(x) = x^3 - x^2 - x + 1$

FTA: Atmost 3
Factored form: $(x-1)^2(x+1)$
Actual roots: -1, 1 mul. 2
End Behavior:

$f(x) \to -\infty \ as \ x \to -\infty$
$f(x) \to \infty \ as \ x \to \infty$

Graph:

2) $f(x) = x^4 - 8x^2 + 16$

FTA: Atmost 4
Factored form: $(x-2)^2(x+2)^2$
Actual roots: -2 mul. 2, 2 mul. 2
End Behavior:

$f(x) \to \infty \ as \ x \to -\infty$
$f(x) \to \infty \ as \ x \to \infty$

Graph: