

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) $f(x) = -x^3 - 4x^2 - x + 6$

2) $f(x) = 2x^4 + 7x^3 + x^2 - 7x - 3$

FTA: Atmost 3

Factored form: $-(x-1)(x+2)(x+3)$

Actual roots: -3, -2, 1

End Behavior:

$$f(x) \rightarrow \infty \text{ as } x \rightarrow -\infty$$

$$f(x) \rightarrow -\infty \text{ as } x \rightarrow \infty$$

Graph:

FTA: Atmost 4

Factored form: $(x-1)(x+1)(x+3)(2x+1)$

Actual roots: -3, -1, -1/2, 1

End Behavior:

$$f(x) \rightarrow \infty \text{ as } x \rightarrow -\infty$$

$$f(x) \rightarrow \infty \text{ as } x \rightarrow \infty$$

Graph:

