ALG III NAME: _____

Long Division and Zeros 1/4/18

Zero of a polynomial: The zero of a polynomial is the x value that makes y equal to zero.

Example: Find all zeros for $f(x)=x^3-5x^2-2x+24$ given that (x+2) is a factor

Your turn:

Find all zeros for each polynomial function with the given information

1) $f(x)=2x^3-3x^2-23x+12$

Given: (x+3) is a factor

2) $f(x)=x^3+3x^2-4x-12$
Given: $(x+3)$ is a factor

3) $f(x)=2x^3-3x^2-8x-3$

Given: x=-1 is a zero (hint: What would the factor be in order for x=-1 to be a zero?)

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

Given: (x-2) is a factor

5) $f(x)=x^3-5x^2-17x-6$

Given: x=-2 is a solution

6) $f(x)=x^3+2x^2-16x-32$

Given: (x-4) is a factor

7) $f(x)=x^3+2x^2-5x-6$

Given: (x-2) is a factor