Factors and Zeros

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Name: _____

Period:

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1) *Graph these functions and report their zeros.*

   a) $f(x) = (x + 2)(x - 5)$

   b) $g(x) = (x - 3)(x + 2)$

   c) $h(x) = (x - 1)(x + 4)$

   d) $j(x) = (x + 3)(x - 2)(x - 1)$

   e) $k(x) = (x - 1)(x - 2)^2$

   f) $m(x) = (x + 1)^3$

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2) *Explain the connection between a function's factors and its zeros using complete sentences.*

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3) *Fill in the blanks below.*

	Zeros	Factors	Polynomial
a)		$(x + 1)(x + 2)$	
b)	2, -1, 3		
c)			$x^2 + 6x + 8$
d)		$(x - 3)(x + 1)(x)$	
e)			$x^3 + 2x^2 - x - 2$
f)	1, -3i, 3i		

MATHguide has an online lesson on this topic, called Polynomials, Factors, and Zeros.