Algebra 2 Bellwork Tuesday, December 2, 2014

1. Write a polynomial function in Standard Form with the given zeros.

a. $x = 2, -2, 7$

b. $x = -4, 0, 5, 1,$

2. Write each polynomial in factored form.

a. $24x^3 - 150x$

b. $6x^3 - 21x^2 - 45x$

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1. Write a polynomial function in Standard Form with the given zeros.

a. $x = 2, -2, 7$

$(x-2)(x+2)(x-7)$

$(x^2-4)(x-7)$

	x	-7
x^2	x^3	$-7x^2$
-4	$-4x$	$+28$

$x^3-7x^2-4x+28$

b. $x = -4, 0, 5, 1,$

$x(x+4)(x-5)(x-1)$

$x(x^2-x-20)(x-1)$

	x^2	$-x$	-20
x	x^3	$-x^2$	$-20x$
-1	$-x^2$	$+x$	$+20$

$x(x^3-2x^2-19x+20)$

$x^4-2x^3-19x^2+20x$

2. Write each polynomial in factored form.

a. $24x^3 - 150x$

$6x(4x^2-25)$

$6x(2x+5)(2x-5)$

b. $6x^3 - 21x^2 - 45x$

$3x(2x^2-7x-15)$

$3x(2x+3)(x-5)$

	x	-5
$2x$	$2x^2$	$-10x$
$+3$	$+3x$	-15

-30, -10, $+3$, -7