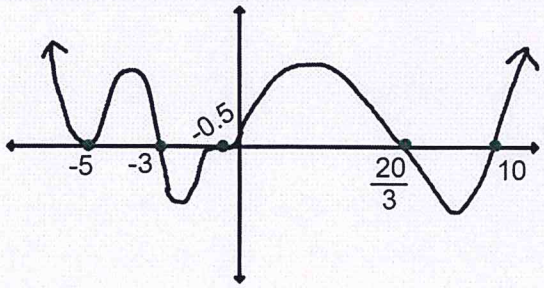
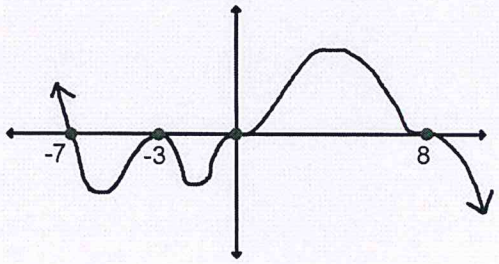
Bellwork Alg 2 Friday, October 26, 2018

1. Write a possible equation of this polynomial.



2. Write the EXACT equation of this polynomial if $(-4, -1990656)$ is on the graph.



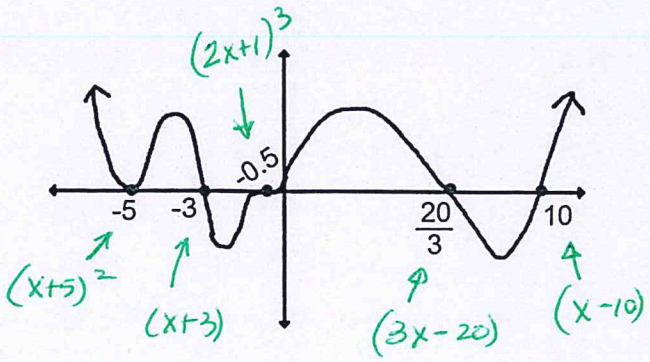
Factor each completely.

3. $12x^4 - 66x^2 - 378$

4. $24x^4 - 294x^2$

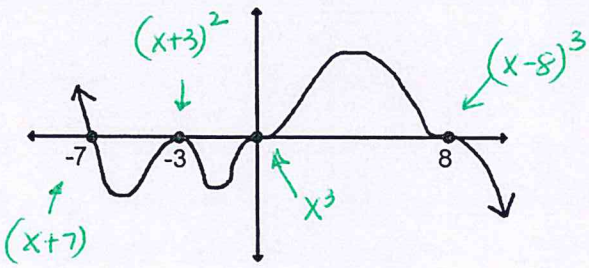
Bellwork Alg 2 Friday, October 26, 2018 ANSWERS

1. Write a possible equation of this polynomial.



$y = (x+5)^2(x+3)(2x+1)^3(3x-20)(x-10)$

2. Write the EXACT equation of this polynomial if $(-4,-1990656)$ is on the graph.



$y = ax^3(x+7)(x+3)^2(x-8)^3$

$-1990656 = a(-4)^3(-4+7)(-4+3)^2(-4-8)^3$

$-1990656 = a(-64)(3)(+1)(-1728)$

$\frac{-1990656}{331776} = \frac{a(331776)}{331776}$

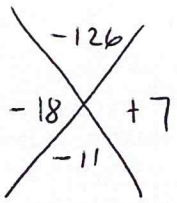
$a = -6$

$y = -6x^3(x+7)(x+3)^2(x-8)^3$

Factor each completely.

3. $12x^4 - 66x^2 - 378$

$6(2x^4 - 11x^2 - 63)$



	x^2	-9
$2x^2$	$2x^4$	$-18x^2$
$+7$	$+7x^2$	-63

$6(2x^2+7)(x^2-9)$

$6(2x^2+7)(x\pm 3)$

4. $24x^4 - 294x^2$

$6x^2(4x^2 - 49)$

$6x^2(2x \pm 7)$