Bellwork Alg 2 Monday, October 29, 2018

Find the coordinates of all extrema, if any. Round to the nearest hundredth.

1. $y = -x^3 + x^2 + 6x - 1$

Abs Max: Abs Min:

Rel Max: Rel Min:

2. $f(x) = 0.25x^4 + x^3 - x^2 - 4.03x - 2$

Abs Max: Abs Min:

Rel Max: Rel Min:

Factor each completely.

3. $3x^7 - 15x^5 + 12x^3$

4. $72x^4 - 162x^3 - 200x^2 + 450x$

Bellwork Alg 2 Monday, October 29, 2018 ANSWERS

Find the coordinates of all extrema, if any. Round to the nearest hundredth.

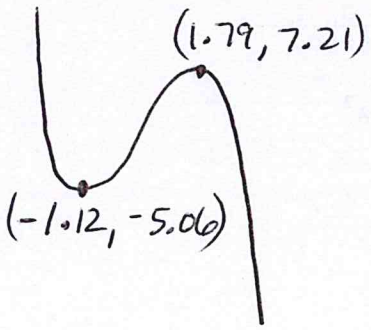
1. $y = -x^3 + x^2 + 6x - 1$

Abs Max: NONE

Abs Min: NONE

Rel Max: $(1.79, 7.21)$

Rel Min: $(-1.12, -5.06)$



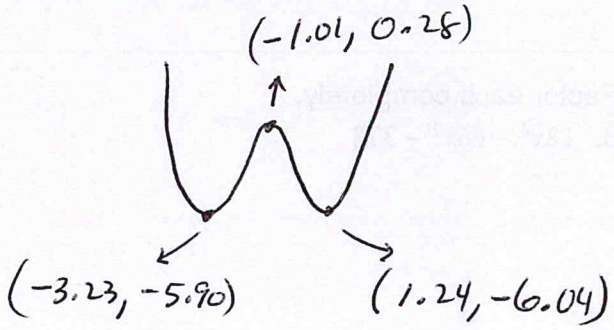
2. $f(x) = 0.25x^4 + x^3 - x^2 - 4.03x - 2$

Abs Max: NONE

Abs Min: $(1.24, -6.04)$

Rel Max: $(-1.01, 0.28)$

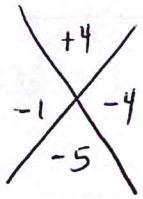
Rel Min: $(-3.23, -5.90)$



Factor each completely.

3. $3x^7 - 15x^5 + 12x^3$

$3x^3(x^4 - 5x^2 + 4)$



$3x^3(x^2 - 1)(x^2 - 4)$

$3x^3(x \pm 1)(x \pm 2)$

4. $72x^4 - 162x^3 - 200x^2 + 450x$

$2x(36x^3 - 81x^2 - 100x + 225)$

	$4x$	-9
$9x^2$	$36x^3$	$-81x^2$
-25	$-100x$	$+225$

$2x(4x - 9)(9x^2 - 25)$

$2x(4x - 9)(3x \pm 5)$