

# Bell Work

Algebra 2B

# Day 1 - January 5<sup>th</sup> 2016

Solve

1.  $(2x^2 + 3x - 4) + (6x^2 + 5)$

2.  $(3x^2 - 7x + 4) - (2x^2 - 5x + 6)$

3.  $(x + 3)(x - 7)$

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

# Day 2 - January 6<sup>th</sup> 2016

Factor

1)  $3x^2 + 6x$

2)  $x^2 + 5x + 6$

3)  $2x^2 + 10x + 8$

# Day 3 - January 7<sup>th</sup> 2016

Factor

1)  $x^2 + 5x + 6$

2)  $2x^2 - 3x - 9$

# Day 4 - January 11<sup>th</sup> 2016 - Begins Week 2

Factor:

$$3x^2 - 2x - 5$$

# Day 5 - January 12<sup>th</sup> 2016

Factor  $x^3 + x^2 - 12x$

Hint: Factor out the greatest common factor.

Then: Use the factor tree.

# Day 6 - January 13<sup>th</sup> 2016

Write a formula for length, width and height in terms of the variable  $x$ .

The Length, Width and Height add up to 10cm.

The Width is twice as long as the Length.

Assume Height equals  $X$ .

# Day 7 - January 14<sup>th</sup> 2016

Factor

$$3x^2 + 10x + 3$$



# Day 8 - January 19<sup>th</sup> 2016 - begins week 3

What are the possible factors of the following integers

- 1) 8
- 2) 5
- 3) 24

# Day 9 - January 20<sup>th</sup> 2016

Find the slope:

1.  $y = 2x + 3$
2. Between the points:  $(2,3)$   $(5,7)$

Day 10 - January 21<sup>st</sup> 2016

# Day 11 - January 25<sup>th</sup> 2016

Given the parent function:  $f(x) = 2(x + 2)^2 - 3$

What is the child function that is translated two units up and 3 units to the right?

# Day 12 - January 26<sup>th</sup> 2016

Draw a graph, based on the following polynomial.

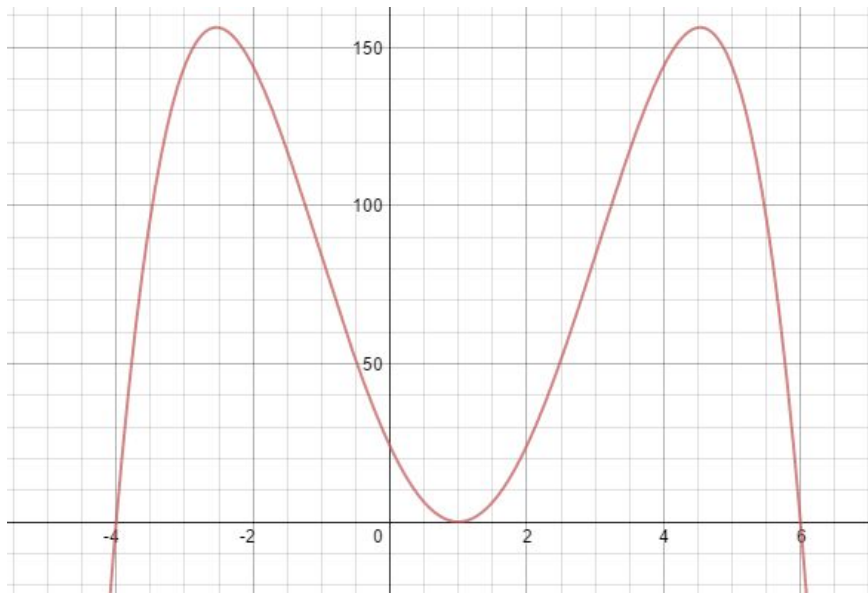
Hint: start with the zeros

$$f(x) = (x - 2)(x - 3)(x + 1)$$

# Day 13 - January 27<sup>th</sup> 2016

Based on this graph:

1. What are the zeros?
2. Which zero has a multiplicity?
3. What is the End Behavior?



# Day 14 - January 28<sup>th</sup> 2016

Based on the graph: (Needs to be updated)

1. Over what values is the function increasing and decreasing?
2. What are the Local Maximums and Local Minimums?

# Day 18 - February 4<sup>th</sup> 2016

1. You invest \$5,000 in a bank in 2016, at 7% interest. How much will this investment be worth in 2020?

You must write the formula out and solve it correctly.



# Day 19 - February 8<sup>th</sup> 2016

Solve

$$y = 3(2)^2$$

$$y = 2(3)^2$$

$$y = 5(2)^4$$

# Day 20 - February 9<sup>th</sup> 2016

Re-write in exponential form

1.  $\log_6 36 = 2$

2.  $\log_3 81 = 4$

# Day 21 - February 10<sup>th</sup> 2016

Solve the following equation:

1.  $9^{3x} = 27^2$

Day 22 - February 11<sup>th</sup> 2016

Condense the following algorithm

1.  $6\log_3 u + 6\log_3 v$

Expand the following algorithm

2.  $\log(a \square b)^2$

Day 23 - February 16<sup>th</sup> 2016

Solve the following natural log by converting to an exponential equation.

1.  $\ln(2x + 4)^5 = 10$

## Day 24 - February 17<sup>th</sup> 2016

- 1) Draw the chart we use for determining End Behavior.
- 2) What is the end behavior of the following Polynomial:  $y = 4x^4 - 5x^3 + 2x$

Day 25 - February 18<sup>th</sup> 2016

Solve the following equation:

$$1) \quad 4^{(x + 1)} = 16^{(2x + 3)}$$