**ARC Week at Glance**

**Subject: Math Course: Advanced Algebra Concepts & Connections Grade: 9th – 12th Dates: 2/3 to 2/7**

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| **Standard(s):**  **Standard(s):**  AA.FGR.5.4 Use the structure of an expression to factor quadratics.  AA.FGR.5.8 Identify the number of zeros that exist for any polynomial based upon the greatest degree of the polynomial and the end behavior of the polynomial by observing the sign of the leading coefficient.  AA.FGR.5.9 Identify zeros of polynomial functions using technology or pre-factored polynomials and use the zeros to construct a graph of the function defined by the polynomial function. Analyze identify key features of these polynomial functions.  AA.FGR.5.11 Using all the zeros of a polynomial function, list all the factors and multiply to write a multiple of the polynomial function in standard form.  **Assessment(s):  Quiz  Unit Test  Project #-Tiles Activity** | | | | | | |
|  | **Learning Target**  **(I am learning about…)** | **Criteria for Success**  **(I can…)** | **Opening**  *(10 - 15 Mins)* | **Work-Session**  *(20 - 25 mins)* | **Closing**  *(5 - 10 mins)* | **Literacy Tasks/Focus** |
| *(Include at least one/two formatives\*in any part of the lesson as needed)* | | |
| **Monday** | I learning about roots and factors of polynomial functions. | I can find roots and factors of second- and third-degree polynomials. | Complete #1 on Factors, Zeros and Roots: Oh My” Task | Complete #’s 2 and 3 on Factors, Zeros and Roots: Oh My” Task with teacher modeling and guidance | If you count repeats, how does the degree of the polynomial compare to the number of roots? | See Closing |
| **Tuesday** | I learning about roots and factors of polynomial functions. | I can find roots and factors of third-degree polynomials. | List all of the factors  of 20. How did you determine they were factors- explain. | Complete # 4 on Factors, Zeros and Roots: Oh My” Task with teacher modeling and guidance | Complete # 5a on Factors, Zeros and Roots: Oh My” | How did 5a differ from #4? How was it similar? |
| **Wednesday** | I learning about roots and factors of polynomial functions. | I can find roots and factors of fourth and fifth-degree polynomials. | Complete #5 on Factors, Zeros and Roots: Oh My” Task | Complete #6 on Factors, Zeros and Roots: Oh My” Task with teacher modeling and guidance | Try #7 on Factors, Zeros and Roots: Oh My” Task | Explain how you performed synthetic division with an imaginary root. |
| **Thursday** | I learning about roots and factors of polynomial functions. | I can find roots and factors of polynomials. | Go over scoring rubric and expectations for the Polynomial Project.  \*Formative | Polynomial Project with partner | Teacher pre-checks project and provides feedback.  \*Formative | Can you correct work based on feedback you received? |
| **Friday** | I learning about roots and factors of polynomial functions. | I can find roots and factors of polynomials. | Return pre-checked Poly Project, Q&A, Feedback | Finish Polynomial Project with partner  \*Summative | Teacher monitors progress & offers guidance. | Can you correct work based on feedback you received? |

**\*** Exit Ticket/Final Stretch Check  Electronic Tools  Dry Erase Boards – quick checks  Turn & Talk Discussion (verbal responses)  Teacher Observation – document Clipboard

Quick Write/Draw  Annotation  Extended Writing  Socratic Seminar  Jigsaw  Thinking Maps  Worked Examples  Other : \_\_\_\_\_\_\_\_\_\_\_