

# Birthday Polynomial Success Criteria

Check box	Points	Criteria
<input type="checkbox"/>	(½)	1. <u>Title</u> - Give your Polynomial a Name
<input type="checkbox"/>	(½)	2. <u>Birthday</u> -Display your Birthday
<input type="checkbox"/>	(1)	3. <u>Polynomial</u> - Write the Polynomial in Standard Form
<input type="checkbox"/>	(1)	4. Sketch the polynomial
<input type="checkbox"/>	(½)	5. Draw the x-axis
<input type="checkbox"/>	(½)	6. Draw the y-axis
<input type="checkbox"/>	(1)	7. <u>Degree</u> - State the Degree of the Polynomial
<input type="checkbox"/>	(1)	8. <u>Leading Coefficient</u> - State the Leading Coefficient
<input type="checkbox"/>	(1 ½)	9. <u>Number of Turning Points</u> - List all possibilities of turning points and circle the number that your polynomial exhibits
<input type="checkbox"/>	(1)	10. <u>Domain</u>
<input type="checkbox"/>	(1)	11. <u>Range</u>
		} Use interval notation
<input type="checkbox"/>	(2)	12. <u>End Behavior</u> - Use limit notation: $\lim_{x \rightarrow -\infty} f(x) = \underline{\hspace{1cm}}$ $\lim_{x \rightarrow \infty} f(x) = \underline{\hspace{1cm}}$
<input type="checkbox"/>	(1 ½)	13. <u>Increasing</u>
<input type="checkbox"/>	(1 ½)	14. <u>Decreasing</u>
		} Use interval notation
<input type="checkbox"/>	(1 ½)	15. <u>Zeros</u> - Place values on x - axis and state with the other key features
<input type="checkbox"/>	(1)	16. <u>Y-intercept</u> - Place value on y - axis and state with the other key features
<input type="checkbox"/>	(1 ½)	17. <u>Maximums</u>
<input type="checkbox"/>	(1 ½)	18. <u>Minimums</u>
		} Place coordinates on graph & label as absolute or local (relative) also state only the y-values of each with your other key features
<input type="checkbox"/>	(3)	19. <u>Presentation</u> - Neat, organized, and colorful