Algebra 2 Honors Midterm Exam Review

* Simplify Radicals for Complex Numbers (2.4)

1. 2.

* Multiplying Complex Numbers (2.4)

3.

* End behavior of Polynomial Functions (3.1)

4. What is the end behavior of the graph of

5. What is the end behavior of the graph of

* Use Remainder Theorem to find remainder from polynomial long division (3.4)

6. Find the remainder of using the Remainder Theorem

7. Find the remainder of using the Remainder Theorem

* Use polynomial long division (3.4)

8. Divide

* Transformations & Graph of Quadratic Functions (2.1)

Graph and identify the transformations of the quadratic functions

9. 10.

* Graph Quadratic Functions in Standard Form (2.2)

Graph.

11.

* Write the Equation of a Parabola (2.1)

Write the equation of the parabola in vertex form given the vertex and a point that it passes.

12. Vertex (-2, 3), Point (1, 5)

* Multiply Polynomials (3.2)

13.

* Solve linear systems of equations using substitution or elimination (1.6)

Solve the system algebraically.

* Key features of quadratic functions (2.2)

16. What is maximum or minimum value? Range?

* Arithmetic Sequences and Series (1.4)

18.

* Factor a Quadratic Expression (2.3) or use Identities to Factor (3.3)

19. Factor 20. Factor

* Use factoring to identify the zeros of a quadratic function (2.3)
* Use long division to factor polynomial to determine multiplicities and behavior of a polynomial function (3.5)

21. One of the zeros of . Use long division to factor the polynomial. What are the zeros/multiplicities? How does it behave at each zero?

* Find Vertex of a Quadratic Function in Standard Form (2.2)

22. What is vertex and axis of symmetry of ?

* Solve a Quadratic Equation by Completing the Square (2.5)

Solve by completing the square

23.

* Identify the Number of Real-Number Solutions (2.6)

25. How many solutions does have?

26. How many solutions does

* Solve a Linear-Quadratic System Using Substitution (2.7)
* Add and Subtract Polynomials (3.2)

29.

* Find the number of roots of a given polynomial

30. 31.

* Find all Real and Complex Solutions (3.5)

32. 33.