Int 3MA C8 DDAY Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Per \_\_\_\_ Group \_\_\_\_

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| 1. Sketch the graph | 1. Write as the product of linear factors |
| 3. Write the exact equation of the polynomial function | 4. Write the exact equation of the polynomial function |
| 5. Write a polynomial function in standard form with the given roots. | 6. Write the polynomial function in standard form given the roots and. |
| 7. Divide by | 8. Solve. |
| 9. Determine all the roots of | 10. Determine all the roots of |
| 11. Determine the degree, zeros and their multiplicity.  Degree:  Zeros:  Multiplicity: | 12. Solve. |
| 13. Expand the logarithm. | 14. Find an exponential growth model () whose graph passes through the points (1,120) and (2, 168) and has the asymptote |
| 15. Find the inverse of | 16. Given,  and, solve the triangle. |
| 17. Circle **all** of the following statements that apply to the graph of .  A.        The degree is 6.  B.        It has negative orientation.  C.        It has 6 distinct *x*-intercepts.  D.        The range is all real numbers.  E.        It passes through the origin.  F.        (0, 2) is one of the roots.  G.        Its inverse is a function.  H.        The *y*-intercept is (0, –500). | 18. Find the inverse: |
| 19. Use synthetic division to show that 3i is a zero of | 20. Factor  a.  b. |