Pre-Calculus: 2.5 – 2.6 Review

Complex Numbers and Finding Zeros of Polynomial Functions

Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Hour: \_\_\_

1. Perform the indicated operation and write the result in standard form.

Solution: \_\_\_\_\_\_\_\_\_\_\_

Solution: \_\_\_\_\_\_\_\_\_\_\_

Solution: \_\_\_\_\_\_\_\_\_\_\_

Solution: \_\_\_\_\_\_\_\_\_\_\_

1. Write the expression in where is a real number.

Solution: \_\_\_\_\_\_\_\_\_

* 1.

Solution: \_\_\_\_\_\_\_\_\_

1. Write the following expressions in standard form.
	1.

Solution: \_\_\_\_\_\_\_\_\_

Solution: \_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. Find the product of the complex number and its conjugate given that .

Solution: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. Write in standard form a function that would have with real coefficients and zeros:

. (Multiply out)

Standard Form: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. Write in standard form a function that would have with real coefficients and zeros with their multiplicities:

|  |  |
| --- | --- |
| Zero |  Multiplicity |
|  |  |
|  |  |

 Standard Form: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. Find all of the zeros and write a linear factorization of the function.

Linear Factorization: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. Given the zero , find and list all of the remaining zeros of:

.

Linear Factorization: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_